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'It's Important to Know In Time'

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The Newspaper of the Industry

Air Conditioning & REFRIGERATION NEWS

Production Tools for Victory — Technical Government

AN INTERNATIONAL INSTITUTION ★ SUBSCRIBERS ALL OVER THE WORLD ★

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'Written To Be Read on Arrival'

Issued Every Monday at Detroit, Michigan

JAN. 3, 1944

Vol. 41, No. 1, Serial No. 772
Established 1926.

Inside Dope

By George F. Taubeneck

Face-Saving Plebiscites
Economy Again
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Alaskan Prospects
Virile Americanism
High Cost of Epidemics

Face-Saving Plebiscites

Professional worriers, particularly among the amateur "liberals," wonder how in the heck can the Atlantic Charter be reconciled with Russia's avowed intention of dominating the Baltic and the Balkans, and with the Churchill statement that he was not named the King's first Minister "to preside over the liquidation of the British Empire."

Democratic politicos also worry over the effect of the Russian will and the British will, as expressed in postwar settlements, upon American "foreign language" populations, such as the vocal Polish, Czech, Italian, Jugo-Slavian, Finnish, Rumanian, Bulgarian, and Hungarian elements.

Well, in Washington circles they are now saying that a "face-saving" method will be found through the use of "plebiscite" elections. Of course these elections will be conducted by the occupying armies.

Economy Again

Wars are won by the most extravagant side, and there's no question but that the United States has been pouring out money at a rate unprecedented in the world's history.

Nobody can quarrel with the result. True, factories have been built that will never be used. Guns have been made that will never shoot. Soldiers have been drafted who will never be put to use. But as a result of our overpowering extravagance, we are winning the war much faster than anyone had thought possible.

The very specter of our surpluses is expected to frighten the methodical, mathematical Germans into earlier surrender.

But it looks as if the extravagant days are nearing an end. The Army itself is turning back unused appropriations. Plant construction is being cancelled. High-cost mines are being shut down. And Congress is beginning to scrutinize all appropriations and expenditures with an eye toward saving the money of future taxpayers.

"After fighting this war," some say, "our soldiers and sailors shouldn't have to spend the rest of their lives paying for it."

So watch for a frugal attitude when Congress begins work on appropriation bills next year. Nobody now believes that our national debt will reach $300 billion before the war's end, as originally projected. It may not run to much more than $250 billions.

Nearly all governmental spending propects tend to be self-perpetuating, and many keep going long after the original need has passed. Congress can be expected to look everything over next year with economy in mind, however.

WPB Decentralization

Charley Wilson's sane efforts in the behalf of WPB decentralization are beginning to bear fruit. One now hears that these advances are in order:

All priority applications up to $2,500 (including practically all PD-1A's) will be approved finally by WPB field offices.

Applications involving new pro-

(Concluded on Page 5, Column 1)

Procedure For Locker Plants In 1944 Outlined

WASHINGTON.—Procedure to be followed in making application for permission to construct or expand refrigerated locker plant facilities under the program for 1944 has been outlined by the War Production Board and the War Food Administration.

For such construction a limited amount of refrigeration and miscellaneous processing equipment items including power meat saws, power grinders, scales, trackage, boilers, hot water heaters, and lard kettles, as well as the necessary wiring, water pipe, and other building material, have been allotted to the War Food Administration by WPB.

All application forms for locker plant construction in 1944 are to be submitted to WPB, Washington, D. C. The WPB forms 617 and 2449 are obtainable from the WPB offices, but the "Supplemental Information Form" must be obtained from the state or county office of the Agricultural Adjustment Agency or from the War Food Administration, Washington 25, D. C.

Following is an outline of the responsibilities and duties of the applicant in connection with the filing and processing of frozen food locker plant applications.

A. Responsibilities of the Applicant

1. The responsibility for meeting requirements, for submitting the required forms and information to WPB, and for carrying on any necessary correspondence with WPB or WFA rests entirely with the applicant.

2. Review the requirements contained in "Requirements to be Considered by WFA in Recommending Locker Plants" and prepare the necessary forms. The Supplemental Information Form may be procured from the county office, the State office, or the War Food Administration, Washington 25, D. C.

3. Have at least the required number of locker renters who are producers, deposit advance locker rentals in an escrow fund held by a local bank or other responsible agency. In meeting the requirement on the minimum number of producers who are to pay advance locker rentals, only one locker may be counted for each producer's immediate family.

4. Submit to the County Committee for the country in which the plant will be located, the following:

a. **New Plants.** The required list containing the names and addresses of those renting lockers and the amount of money paid by each family, and the Supplemental Information Form which contains the required county committee certification.

b. **Expansion to an Existing Plant.**

1. The list giving the names and addresses of all persons renting lockers in the present plant.

2. The required list containing the names and addresses of those renting lockers and the amounts of money paid by each family, and the Supplemental Information Form which contains the required county committee certification.

5. Submit to the War Production Board, Washington, D. C., the data and forms listed under item E of "Requirements to be Considered by WFA in Recommending Locker Plants."

A. GENERAL REQUIREMENTS

1. Any applications mailed by the applicant on or after Jan. 1, 1944 must be prepared according to this revised procedure.
60 square feet of chilling and aging

2. The proposed construction should be such that it will have space, equipment, and general facilities for processing locally produced foods in a satisfactory and sanitary manner. The plant should have approximately room space for each 100 lockers of

(Concluded on Page 4, Column 2)

Wholesalers Get Allotments of Copper Tubing

WASHINGTON, D. C. — Direction 1 to CMP Regulation 9A issued Dec. 23 by WPB permits distributors of refrigeration equipment and supplies to order 6,000 pounds of copper tubing per quarter for resale to refrigeration repairmen.

The Direction states simply and clearly that all the refrigeration equipment distributor needs to do is to endorse his order with the CMP allotment number V-3 and the CMP Regulation No. 7 certification.

He can sell it only on an order placed under paragraph (c) of CMP Regulation No. 9A (published in the Dec. 6 issue of the NEWS) by a refrigeration repairman.

A "distributor of refrigeration equipment" must be one who was in business on Aug. 1, 1943 and who sold copper tubing for refrigeration repair purposes in 1941.

A distributor who had more than one distribution point on Aug. 1,

(Concluded on Page 6, Column 2)

Metals Can Be Used In Reach-in Boxes

WASHINGTON, D. C.—All limitations on the use of any kind of materials in the manufacture of reach-in commercial refrigerators are removed in the revised Schedule V to Limitation Order L-126 issued Dec. 29 by WPB.

In fact, there is no longer any mention of reach-in refrigerators at all in Schedule V, which now covers only "commercial walk-in refrigerators." This means that steel and other metals materials can be used in the production of reach-in refrigerators.

WPB Refrigeration Staff Setup Given

WASHINGTON, D. C.—The Refrigeration and Air Conditioning Section of WPB's General Industrial Equipment Division has been reorganized in order to give more time to direct work with manufacturers on procurement of materials and component parts, and the completion of specific programs established by various government agencies, WPB officials announced last week.

Insofar as possible, the section will also provide assistance in developing permitted production of normal products to supplement the production of wartime products. Recently amended Order L-38, which eliminated a considerable amount of the routine processing of priority actions, has made this reorganization possible.

Manufacturers and others in the refrigeration and air conditioning industry are urged to present their problems to the staff of this section. In order that inquiries and requests may be directed to the proper individual a summary of the personnel and their respective responsibilities is listed here:

Frederick W. Smith, Chief, Special Equipment Branch.

Sterling F. Smith, Chief, Refrigeration and Air Conditioning Section, Administrator of Order L-38.

Roderick H. Tait, Deputy Chief, Refrigeration & Air Conditioning Section, Administrator of Order P-126.

F. B. Millham, Special Assistant to Branch Chief, Administrator of Order L-126 and Order M-28.

A. Gordon Wootton, Chief, Material Coordinating Unit (CMP).

J. F. Lambert, Technical Consult-

(Concluded on Page 16, Column 4)

Maximum Prices on Repair Charges Increased by OPA

Supplements to MPR 165 Let Operator Choose Best Pricing Method

WASHINGTON, D. C.—Price ceilings on repair charges, including overtime rates, have been increased by OPA for household refrigerators, commercial refrigerating and air conditioning equipment up to 25 tons, and other electrical appliances in two supplements to Maximum Price Regulation 165 issued Dec. 20.

While the new regulation continues the March, 1942 prices as the ceiling for those service operators who charge customers on an hourly rate, three alternative pricing methods for regular work are now permitted. The regulation permits the operator to choose the pricing method which he thinks will be most beneficial to him.

"The alternate methods are calculated to afford a margin over direct labor costs that is comparable to that generally obtained in the automotive and farm equipment repair field," explains OPA.

A service operator who employs service men is allowed to select one of the following four ways to establish his maximum hourly charges to the customer:

(1) Charge the highest customer's hourly rate that the seller charged in March, 1942.

(2) Charge the customer for each hour of service a price that is double the average basic hourly wage rate paid on Oct. 3, 1942, to employes performing the partciular type of service. (Oct. 3, 1942, is the date when wage rates were stabilized under the Economic Stabilization Act.)

(3) Charge the customer 60 cents more per hour of service than the average basic wage rate paid on Oct. 3, 1942, to employes performing the particular type of service.

(4) If the supplier employs no more than eight employes, and is exempt from wage control by the National War Labor Board, he may add to the customer's hourly rate determined under either Method 2 or 3 above, an amount equal to the increase since Oct. 3, 1942, in the average straight-time hourly rate for mechanics performing each type of service.

A price established on the basis of Method 4 may not be changed oftener than once in 30 days, according to the regulation.

The independent service man who does all his work himself and has no employes is also given an alternate method of pricing.

He may charge the highest hourly rate that he charged in March, 1942, for the same service to a purchaser of the same class, or

He may charge the maximum hourly rate that is charged by his most closely competitive seller who does employ mechanics to perform the service.

Price adjustments are also permitted on minimum charges for service calls. Although the regulation states that minimum charges and mileage rates may not exceed the March, 1942, minimum charges and mileage rates to the same class of customer, an exception is made where the minimum charge is based on time rather than an arbitrary price figure.

If, in March, 1942, the minimum charge for a service call was one hour's time at, say $2 an hour, the service operator may now set up the same length of time as the minimum charge, but he will receive more money if he has increased his hourly rates in accord with the new price regulation.

The regulation also requires that service firms, including the inde-

(Continued on Page 13, Column 1)

Detroit Contractors Serve Xmas Dinner To Soldiers, Sailors

DETROIT. — Members of the U. S. Armed Forces who were "away from home" in Detroit on Christmas Day got a traditional turkey dinner "with all the trimmings" through the efforts of the Refrigeration Contractors Association of Detroit.

The Contractors group bought 40 turkeys, cooked and prepared the dinners, and served them personally at the Detroit U.S.O. from 1 to 7 p.m. on Christmas Day. The members of the association worked in three 2-hour shifts in serving the dinners.

The association made this contribution in an anonymous fashion, no effort whatever being made to take any credit for this contribution. "We were paid off in the smiles of gratitude from the men," said one of the members.

Ben Hyatt of Copeland Refrigeration Service was chairman of the committee in charge.

Mahan Joins Crosley Advertising Dept.

CINCINNATI—S. D. Mahan has been appointed director of advertising and public relations of the manufacturing division, Crosley Corp., it was announced by R. C. Cosgrove, vice president and general manager.

For the past 2½ years, Mr. Mahan has served the U. S. Treasury department as director of advertising and promotion for the War Bond program and as associate national field director in charge of all War Bond and Stamp sales through retailers and the newspaper boys of the nation. He has been asked by the war finance division of the Treasury department to continue his association with the above activities in the capacity of a consultant.

In his new connection with Crosley, Mr. Mahan returns to the electrical appliance field where he spent over eight years, first as merchandise advertising and promotion manager and, later, as general advertising manager of the Westinghouse Electric & Mfg. Co.

Chicago Jobbing Firm Has New Owners

CHICAGO.—Jack Glass and C. S. Swanson have purchased the Chase Refrigeration Supply Co., 546 W. 119th St. here, wholesaler of refrigeration supplies, and will continue to operate the business under the same name.

Mr. Glass for the past four years was manager of the refrigeration and air conditioning department of the Fred C. Kramer Co. of Chicago. Prior to that he was with the H. Channon Co. as assistant manager of its refrigeration and air conditioning department.

Mr. Swanson was formerly with the Standard Forgings Co. of East Chicago, Ind., having held the position of general superintendent for the past several years.

The new operators of the Chase Refrigeration Supply Co. have planned a program of expansion and improved service for customers which includes a perpetual inventory system that will keep the firm's shelves completely stocked with refrigeration supplies.

R. V.41-43 1944

The Priorities Quiz

(AIR CONDITIONING & REFRIGERATION NEWS, *with the aid of a man who is actually engaged in handling much priorities work, will attempt to answer questions from readers about priorities problems. The editors will not guarantee to answer all questions, nor can they guarantee that the answers will be legally perfect, but an effort will be made to provide a guide to correct procedure wherever possible.)*

How Employes Buy Tools Requiring Priority

Q. Very frequently one of our employes will report that he must buy a hand tool needed in his work for us but that a priority is required. We, of course, have an automatic priority for the purchase of such tools and other maintenance, repair, and operating supplies granted us by CMP Regulation No. 5. We understand that there is some way for us to permit our employe to use our rating in purchasing the tool. Can you tell us how this is done?

A. Until very recently, there were several methods which could be used by an employer in permitting an employe to use his MRO ratings for the purchase of hand tools. On Dec. 3, Direction 4 to Priorities Regulation No. 3 was issued consolidating these methods.

The official rule now is that any employe of a person or company to whom there has been assigned a preference rating of AA-2x or higher for maintenance, repair and operating supplies may use the preference rating assigned to his employer to buy such items as hand tools required for use exclusively in the employer's business. The employe must give the seller of the item the following certification which must be signed both by the employer and the employe:

"Preference rating (specify rating) ....MRO. The following item..... (only one may be placed on each certificate; specify type and size of tool, or give name of other item) is required by the undersigned employe for use only in the undersigned employer's business, and the undersigned employer requires the employe to furnish the item. The undersigned employe further certifies that he does not own or possess any similar items which will serve the same purpose.

.....
(Name and address of employer)

.....
Authorized signature)

.....
(Signature of employe)

....."
(Position)

The employer is required to keep a copy of the certificate for two years just the same as he keeps copies of his purchase orders for that length of time. However, the employer need not deduct the cost of the tool from his MRO quota even though it is the employer's rating that is being used. In addition to hand tools, this procedure applies also to tool boxes, gauges, and instruments, and safety clothing.

Blanket Valve Ordering Not Asked of Jobbers

Q. We have received a copy of a recent announcement made by the War Production Board which states that orders for control valves, motor controls, automatic type valves, and a list of similar component parts must be placed with the manufacturer before Jan. 1, 1944 to secure delivery in the second quarter of 1944.

We are wholesaler jobbers and in this emergency period have no sure way of estimating what the demand for this type equipment will be as far away as the second quarter, 1944. Are we required, nevertheless, to place blanket orders so as to get into the producer's schedule?

A. You are, apparently, referring to Direction No. 1 to Priorities Regulation No. 18 issued in November. This direction does not apply to orders placed by any person who takes physical delivery of a product for resale and you are, therefore, exempted from the terms of this direction. The direction does not apply either to orders for products listed in the direction which are required for maintenance, repair, or operation supplies — neither does it apply to orders placed by manufacturers where all of the orders placed with a producer for delivery of the same item in the same quarter do not exceed $10,000 in value.

Certain 'Jokers' Apparent In Gov't Civilian Goods Plan

Only Standard 'Frill-less' Products Will Be Made; Complicated Basis For Profits Is Set Up

WASHINGTON, D. C.—Office of Economic Stabilization Director Fred M. Vinson today announced details of a far-reaching program for insuring adequate production of essential civilian goods to be effectuated jointly by WPB and OPA.

A broad policy statement addressed to WPB Chairman Donald M. Nelson and OPA Administrator Chester Bowles lays down procedural responsibilities of the two agencies in carrying through the program. It also establishes the framework for changes and modifications in existing price control techniques when such action will result in stepping up production of specific items.

Primarily, these changes will result in a greater equalization of profit margins for all products and price lines of individual consumers' good industries when such action is needed to improve production of essential items. There is also provision for special handling of price controls affecting marginal producers, and affecting producers whose current profits are at excessively high levels.

The policy statement incorporates two major principles on which will be based any future joint operations of the two agencies in formulating programs for production of essential civilian goods. These are:

WHAT AGENCIES WILL DO

1. The War Production Board is responsible for formulating plans and programs to assure needed volume production of essential civilian goods. When WPB finds that existing price regulations "constitute a serious impediment" to fulfillment of the programs, certification to this effect will be made to the Office of Price Administration.

2. OPA is empowered, under certain conditions, to revise existing price schedules as a production stimulant, but in every case pricing formulas spelled out in the policy statement must be adhered to as a preventive against inflationary or uncontrolled price increases.

Both WPB and OPA actions under the program are subject to review and approval of the Director of Economic Stabilization.

OPA is instructed to review promptly existing price regulations in order to institute price reductions for all items where profit margins are excessive. Purpose of this is to compensate for price increase resulting from the directive and also to equalize, insofar as possible, profit margins of individual items in accordance with the Stabilization Act of Oct. 2, 1942.

Particular emphasis is placed by the program on the need for improving output of essential low-cost goods where serious shortages have developed in recent months.

NO 'FRILLS' OR 'EXTRAS'

"When materials and facilities are available, they must be used whenever possible for producing the maximum quantity of goods for the greatest number of consumers," Mr. Vinson said. "The nation cannot enjoy the luxury of frills and extras when the nation's economy is stripped for war production and more war production.

"There exists a patriotic responsibility on the part of all manufacturers of consumers' goods to produce utilitarian, durable products at a cost which the average consumer is able to pay.

"It must be remembered that millions of our citizens have experienced no increase in income since the start of the war. A large number have actually seen their incomes go down. These individuals — dependents of men in the armed forces, pensioners, recipients of life insurance or annuities, municipal and other government employes, school techers, etc.— must have their essential needs provided for. It is our intention to see that these needs are met."

Highlights of the policy statement are summarized below.

When WPB certification is made to OPA that price regulations operate to hinder production of products essential to the consumer economy, OPA may, with the approval of the Economic Stabilization Director, allow price increases beyond "the minimum requirements of law."

This provision is surrounded with several specific standards on which any price revisions must be based. The standards will (1) prevent excessive profits; (2) assure production from marginal as well as more efficient producers; and (3) provide an equitable spread of profit margins.

HOW PROFITS ARE FIGURED

When price increases are permitted on an individual producer basis, the following standards will prevail:

1. For the producer whose current profits from all operations are no more than double those earned during the 1936-39 base period, or who is operating at a loss: With OPA authorization, he may increase the price of the item for which increased production is needed to an amount not to exceed the total unit production cost plus a profit not to exceed 2% of that cost.

2. For a producer whose profits from all operations are more than double those earned in the 1936-39 base period: OPA may set a price ceiling not to exceed the total cost of making the item for which increased output is indicated. In other words, producers with "exceptionally high" profits will be required to produce needed consumer goods and to sell them at cost.

These standards will also prevail when varying price increases are granted for group of firms, or between groups of firms and individual firms making the same product.

When uniform price increases—in amount of percentage—are needed to obtain industry-wide assistance in production of a given item, it is stipulated that the rate of increase shall be based on the production costs of the highest cost producer. If increases are permitted, the highest cost producer (whose output is needed) of the item involved will not be permitted to set his price in excess of his direct production costs. Prices of other producers will be pro-rated to this.

In instances of this type, however, any necessary price increased will be minimized wherever possible through pooling arrangements. While details of such arrangements were not disclosed, their purpose would be to establish individual producer maximum prices which would conform to the principle that those whose total current profits are not excessive be permitted a 2% profit on goods whose production is essential. The uniform maximum price to purchasers would be the weighted average of the net maximum price to individual producers.

The statement stipulates that any increase in maximum producers' prices resulting from the program be absorbed at subsequent stages of production and distribution "wherever absorptive capacity exists."

RIVETS MUST BE KEPT AT LOW TEMPERATURES TO AVOID HARDENING . . . .

STANDARD FEATURES OF THE L480B INCLUDE:

Calibrated dial — direct reading scale. Tamperproof shield for adjustment dial. Cold control lever. Internal temperature differential adjustment—3° to 12° F. Extra terminal for reverse action.

RANGES: Temperature: —50° to —10° F., —20° to +20° F. 0° to +50° F., +30° to +70° F., +65° to +95° F. (Available with crossambient bulb in ranges 30° to 70° F., and 65° to 95° F.)

OTHER CONTROLS ALSO ADAPTABLE:

L481B Polartron Dual Temperature and High Pressure Controller. . . . Same as above except with high pressure cut-out added.

P421B Polartron Dual Pressure Controller. For control by suction pressure when H. P. C. O. protection is required.

P420B Polartron Low Pressure Controller. For control by suction pressure when H. P. C. O. is not required.

WAR DEMANDS for accelerated production and superior quality and performance have created an urgent requirement for refrigerated rivet storage units. These storage units maintain rivets at a low temperature to keep them contracted, and in the case of certain types of alloys, prevent them from hardening. The L480B Polartron Temperature Controller is particularly suitable for rivet storage units. There is a Minneapolis-Honeywell Polartron Controller for every refrigeration need, in any desired temperature range. Minneapolis-Honeywell Regulator Company, 2807 4th Ave. S., Minneapolis 8, Minn.

THE POLARTRON SYSTEM OF FROST-FREE REFRIGERATION

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REFRIGERATION CONTROL SYSTEMS

SHERER *Self-Serve* DAIRY CASE { LIMITED NUMBER AVAILABLE WITHOUT PRIORITY

Outstanding self-serve dairy case. Immediate shipment. Builds sales and profits for you. *Write for franchise details*

Also available—all types of reach-in refrigerators and walk-in cooling rooms for government procurement agencies.

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Tech.

Another "Retail-Minded" Program from Kelvinator

A SIMPLIFIED POST-WAR PLANNING KIT

The First Complete and Usable Plan of Action Offered Appliance Retailers . . .

Every day brings us closer to that time when electric appliances will again be available for retail sale. This new Post-War Planning Guide can be of tremendous assistance to Kelvinator retailers in organizing their plans and laying the groundwork for an operation to handle both the sudden, immediate post-war appliance demand and the long-pull business of the years to come. The first complete plan to help retailers chart their back-to-business activities, this contribution to sound appliance retailing, is another example of Kelvinator's foresight and "retail-minded" action in wartime!

Provides A Framework to Build on . . .

This Kelvinator Post-War Planning Guide isn't just an essay on post-war markets . . . it's a practical, down-to-earth pattern for organizing a retailer's own operation, a framework for his own facts and figures. It gets right down to business and deals with his own individual problems. It brings up direct questions and tells how to go about finding the answers. The result can be a factual means of selecting the merchandise to sell, the volume to plan on getting, the sales organization required, and the selling space needed to work in. In every case, the planning is based on what the retailer knows is right for *his own individual business!*

Covers Post-War Appliance Problems

Every retail problem can be organized under one of the seven main headings found in the Guide . . .

1. The Market
2. The Appliances to Sell
3. Store or Appliance Department
4. Selling Organization
5. Advertising and Promotion
6. Creative Selling
7. Replacement Business

Sound answers to problems under all of these, can be arrived at through the procedure set up in this amazingly simple planning kit. Needed facts that will prove useful in planning for tomorrow are outlined on a constructive basis for individual analysis.

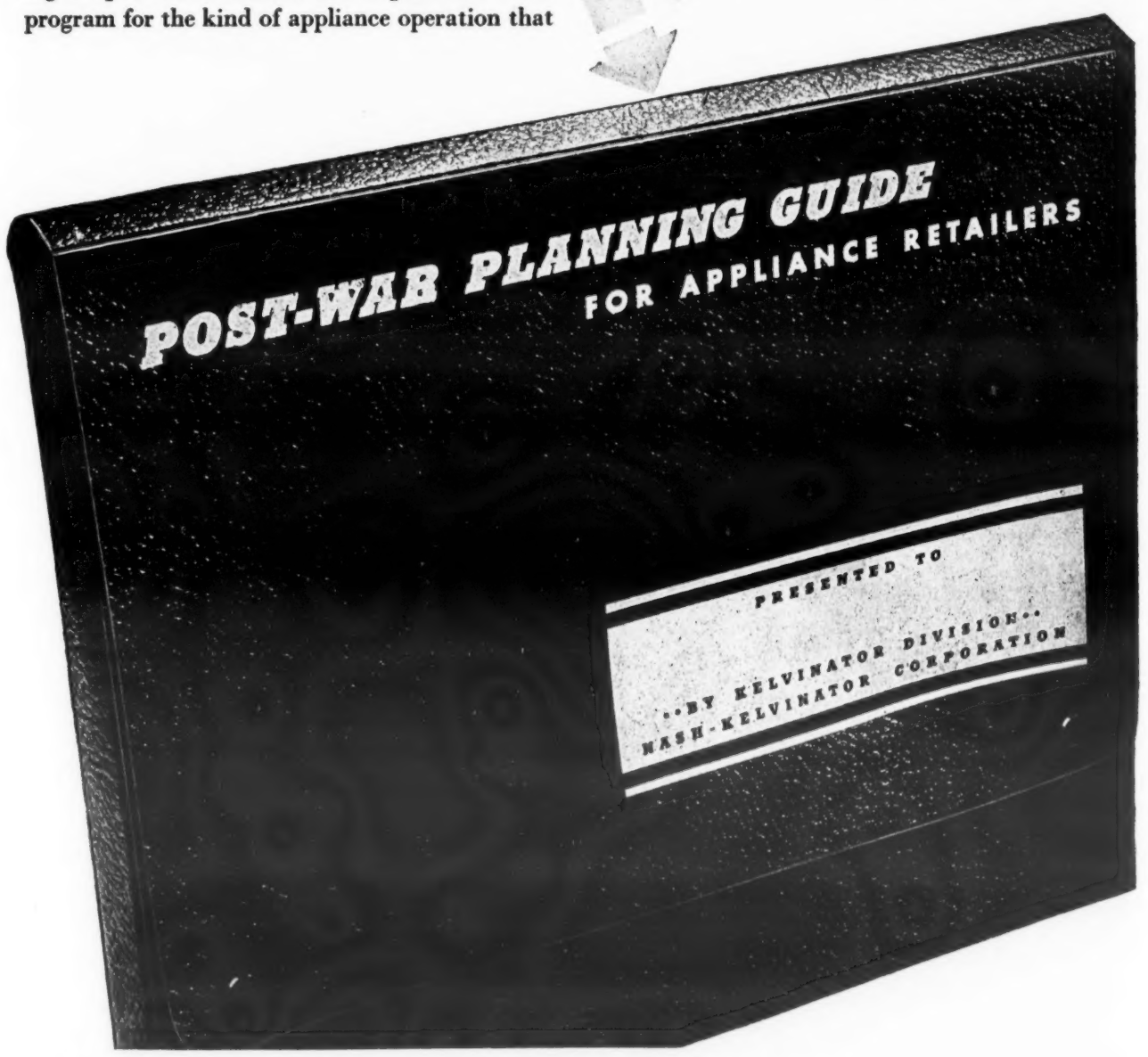
A Constant Up-To-Date Record of Post-War Topics . . .

Planning for peace prosperity is a continuous job and an activity of vital importance. There are 7 indexed folders in the kit. And 5 extra folders with blank indexes for the retailer's own individual data. In this compact package he can keep an active ready-reference file on reprints of articles, clippings, advertisements, notes from meetings, statistics, literature from manufacturers; in fact, everything that may have a bearing on post-war business. It's a plan and work program for the kind of appliance operation that will be essential if a retailer is to realize the full benefits of the post-war years.

Another Result of "Retail-Minded" Action in Wartime . . .

This Kelvinator Post-War Planning Guide is tangible proof of our desire to help the retailers who will be selling Kelvinator appliances when they are again available. It's another convincing piece of evidence of Kelvinator's consistent "Retail-Minded" Action in Wartime! Kelvinator retailers may obtain the Post-War Planning Guide at no cost, upon request to their local Kelvinator Zone or Distributor.

The men and women of the Propeller Division of Nash-Kelvinator Corporation have been awarded, and proudly fly and wear, the famous Army-Navy "E" for High Achievement in War Production.



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DIVISION OF NASH-KELVINATOR CORPORATION
Kenosha · Milwaukee · DETROIT · Grand Rapids · Lansing

Sales Engineer

An old established refrigeration and air conditioning manufacturer has opportunity for sales engineer experienced in air handling and heat transfer equipment. Must be free to travel. Give qualifications, training, nationality in reply. Box 1504, Air Conditioning & Refrigeration News.

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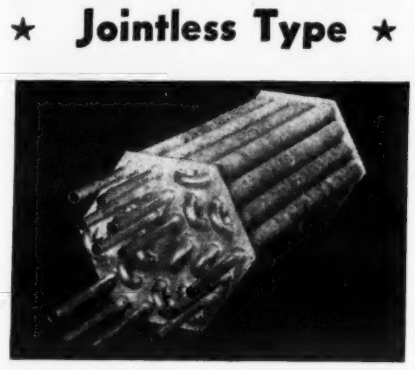
★ Jointless Type ★



Rome Water Cooled Condenser Coils insure trouble-free condensing equipment. Used by leading compressor manufacturers.

ROME-TURNEY RADIATOR COMPANY
222 CANAL ST.
ROME, N. Y.

Requirements and Procedure For 1944 Locker Plant Applications

(Concluded from Page 1, Column 2)

capacity except where fruits and vegetables will constitute a major proportion of the product to be stored.

3. The plant should have sufficient coil and compressor capacity to maintain the desired temperatures as well as chill and freeze the probable product load. The insulation and coil capacity in the locker room should be such that desired room temperatures may be maintained with not more than 15° F. difference between refrigerant and room temperature.

4. The amount of funds invested by the owner or local people should be such that the project is financially sound.

5. The rates to be charged for processing and storage should be such that they will encourage full and efficient utilization of the facilities by patrons but still be adequate to cover costs of operation plus a reasonable profit.

6. The plant should be so located that it will be reasonably convenient for the prospective patrons.

7. Projects should not be proposed in towns where there is an existing locker plant or where another applicant has met the requirements and the application is in process.

8. New locker plants shall have not less than 3,250 cubic feet gross of low temperature storage space exclusive of the sharp freezing space. (Room for approximately 250 lockers.) This cubic content may be arrived at by cubing the dimensions inside the insulation in the low temperature storage space.

B. GENERAL LIMITATIONS ON THE LIST OF MATERIALS AND EQUIPMENT

1.

Population of Town or City	Refrigeration Compressors	Coils
Up to 15,000	New or used	New
15,000 to 25,000	Preferably used	New
25,000 to 50,000	Used only	New
Over 50,000	Used only	Used only

2. Normally 1½ to 2 H.P. of compressor capacity per 100 lockers of capacity is adequate. Compressor capacity in excess of this ratio will necessitate satisfactory justification.

3. Normally 12½ pounds of copper for wire per 100 lockers of capacity is adequate.

4. This program was set up on the basis of projects being housed in existing buildings. Projects requiring a new building will not be recommended in towns or cities with a population in excess of 15,000, and in all other locations there must be adequate justification for such construction and new construction must minimize the use of materials and manpower.

C. RENTAL REQUIREMENTS FOR NEW PLANTS AND EXPANSION TO EXISTING PLANTS

1. (a) Not less than 150 families who are producers of food must have paid their first year's advance locker rental in a new plant of the minimum size (3,250 cubic feet of low temperature storage space exclusive of the sharp freezing space).

(b) For new plants with a capacity in excess of the minimum size, the applicant shall have secured advance rentals as follows:

Population of city	Percent of locker capacity* rented to as many families who are producers
Under 15,000	60%
15,000-25,000	65%
25,000-50,000	70%
Over 50,000	75%

2. Where an existing locker plant is to be expanded, the operator shall rent 60% of the locker capacity in the contemplated low temperature storage space (gross cubic footage of low temperature storage space divided by 14) to different producers of food (as defined) who are not now renting lockers in the existing plants. However, where the existing plant has more than 80 families for each 1,400 cubic feet of low temperature storage space, he may credit the excess (up to 20 families for each 1,400 cubic feet) to the number of new families required for expansion.

Exception:

In those cases where more than 25% of the families renting lockers in the present plant are non-producers, the applicant may not use any of the present renters as a credit on the number required for expansion.

The applicant must furnish a list of all families renting lockers in the present plant and a separate list of new families renting lockers in the proposed expansion.

The word "producer" as used in this instance shall mean:

1. Persons who are resident operators of farms.

2. Persons who reside in town but who supervise the operation of a farm by a tenant on a share basis, or by hired labor.

3. Those not classified above but who grow food of the type normally stored in lockers in sufficient quantity to justify the use of a locker. In general, this shall mean at least 200 pounds of meat or poultry or 150 pounds of fruits and/or vegetables which would be stored in the locker.

D. MONEY IN ESCROW

1. The applicant shall have all families deposit their locker rentals in an escrow fund to be held by a local bank or other responsible agency.

2. The applicant, or the bank or other agency, shall make up a list of those who have paid their rentals. The list shall contain the names and addresses of the **persons** who have paid their rentals and the amount of money paid by each. (In case of plant expansion, a list must also be furnished of present renters.)

3. The bank or other agency shall attach to the list a statement certifying that they are holding in escrow the actual cash, as stated on the list, for each of the families listed, and the total amount of cash so held, and that such cash is to be returned to each individual as listed in case the project is not approved as of a given date.

4. The applicant or the bank or other agency shall submit such list and the certification by the bank to the County Agricultural Conservation Committee at the time application forms and plans are filed with the latter for review and certification.

E. SUMMARY OF DATA TO BE SUBMITTED AS PART OF THE APPLICATION

1. The required WPB Forms:

Form WPB-617—this form (one original and three copies) is to be used if the installation of a system is involved and the cost of the construction (exclusive of the cost of the prime mover (condensing unit) condenser, receiver, evaporated surface (low side), controls, indirect cooling units, and cooling tower) is more than $5,000, the applicant should apply for the whole project, including system on this form.

Form WPB-2449—This form is to be used in all cases other than above specified. Form WPB-2449 is to be used when the system or parts are required for use in any frozen food locker plant or food processing plant.

When WPB-2449 Form is used and the applicant requests processing equipment items such as grinders, power saws, etc., they must file for each item on WPB-3155 Form.

2. Utility forms must be filed where a new connection is necessary (including gas, electricity, water, and steam heat) (See Utility Company for forms).

3. Supplemental Information Forms (two copies).

4. One original and two copies (3) of WPB Form 2581 where priorities are requested on scales.

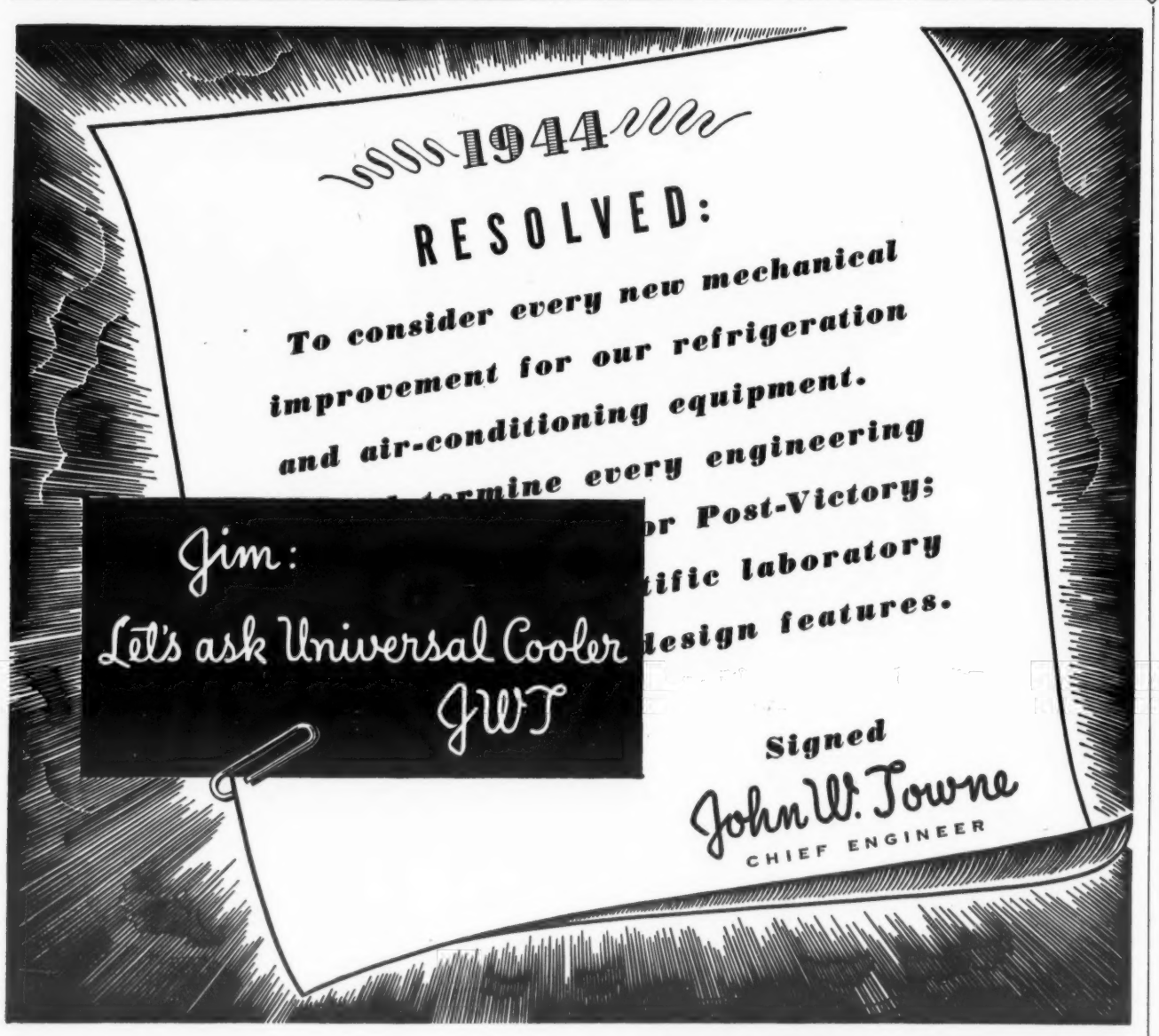
5. Area production urgency committee concurrence must be received in the three Pacific Coast States; Akron, Ohio; Detroit, Mich.; and Hartford, Conn. areas.

6. One blueprint or floor plan of the project.

7. The required lists (Section D) containing the names and addresses of those renting lockers, as well as the amount of money paid by each family on the list.

8. The statement from the bank or other responsible agency (Section D) certifying it is holding in escrow the actual cash for families as noted on this list.

*Locker capacity can be arrived at by dividing the total cubic content of the low temperature storage room by 14.



HERE'S A BOOK KEYED TO YOUR POST-WAR PLANNING

If your post-Victory plans include refrigeration or air-conditioning equipment, you'll want a copy of this new illustrated book "Refrigeration Is Our Business." It's the story of nearly a quarter century devoted exclusively to the design and manufacture of refrigerating and air-conditioning units. It gives briefly the facts about Universal Cooler's expanded research and product engineering; about new manufacturing skills and facilities rising out of war-time demands; about UCC engineers (applying war-time advancements for post-war use) who are available for collaboration. Send for your free copy—today!

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WE SELL TO MANUFACTURERS ONLY
UNIVERSAL COOLER CORPORATION • Automatic Refrigeration since 1922
MARION, OHIO • BRANTFORD, ONTARIO

Artic
(DU PONT METHYL CHLORIDE)
DU PONT
SERVICE NEWS
WAR-TIME NEWS LETTER

Dear Sir:

If you need Methyl Chloride...order it now. We can take care of present requirements...promise fairly prompt deliveries provided empty cylinders are returned quickly. Still in need of a better return of empties ...if you and others continue doing your part... Methyl Chloride shipments will roll.

About using Methyl Chloride in equipment designed for other refrigerants...be careful. Don't do it until you are absolutely certain the change can be made. You should consult the company which built the equipment. Obviously, they know and can tell you whether Methyl Chloride should be used; also what changes are required to conform with the Safety Code.

Did you read what Paul Reed of Servel wrote recently for R.S.E.S. about change-over? It's worth reading. See Trade Press.

If refrigerant change can be made, be sure to get out all of the old refrigerant.

Before charging with Methyl Chloride, thoroughly clean and dry the equipment.

Change the controls for proper handling of Methyl Chloride.

Adjust compressor speed to give required amount of refrigeration.

Be sure to use correct amount of the right kind of lubricating oil.

Then, look over the job, check it carefully to be sure it conforms with the American Standard Association Safety Code.

Very truly yours,
Thomas Coyle
THOMAS COYLE
Manager, Chlorine Products Division

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

Inside Dope

By George F. Taubeneck

(Concluded from Page 1, Column 1)

jects will also be handled by field offices up to $25,000 in value.

And shortly after the first of the year, it is planned that two-thirds of the regular quarterly applications for controlled materials can be eliminated altogether.

Alaskan Prospects

Not all of our tremendous war appropriations will be shot away or burned up. Many billions of the taxpayers' dollars will remain in the form of permanent improvements which should pay dividends to the nation out of commercial trade.

Alaska is a grand case in point. As the belatedly-deified Billy Mitchell once said, the possessor of Alaska will some day rule the world. Of concomitant importance is the fact that Alaska is one of the richest of the world's remaining unexploited and unpopulated areas.

Development of this treasurehouse has been impeded in the past by poor communications. The war has changed all that. Before the war Alaska was an almost inaccessible "island." Her mineral and agricultural riches, great though they were, could not be brought out to markets except at prohibitive cost. Nor did she have the people to work her claims.

But now we have the Alcan highway across Canada, and the newer, unpublicized feeder roads. Railroads have been double-tracked; new railroads have been pushed through. Extravagant numbers of airfields have been built. All Alaska now has transportation facilities more adequate and better than many States in the union can boast.

So now the millions of acres of unplowed, tremendously fertile agricultural lands can be brought into production. The mines can be opened with the aid of machinery which couldn't be brought in economically before.

And the manpower . . . well, surveys show that thousands upon thousands of our soldiers plan to take their home-town girl-friends back to Alaska when the war ends.

As General Simon Bolivar Buckner (who is going to settle in Alaska himself when the Japs are wiped up) is said to have put it: "Soldiers up here are saying that all Alaska needs to make it a Paradise is their girl friends."

This industry will note that Alaska will be for decades a primary producer of raw materials. The richer it grows, the more potent it will become as a market for our manufactured goods.

Virile Americanism

E. T. Murphy, senior vice president of Carrier Corp. recently traced the growth of this company from its inception, and cited its record as refuting assertions "that American Industry has attained such maturity that the birth and development of new ideas and the founding of new industry can no longer be expected from our system of free enterprise."

In his talk, Mr. Murphy listed six "ingredients of a successful business" as follows:

"First, there must be a sound idea that is useful either directly to the consumer, or as a tool to produce things of service.

"Second, there must be a firm determination to translate these ideas into their useful development, to the end that employment may be given to people; that profit may result for the investors of time, work and money into the merchandising of the idea; all in order that the ultimate consumer may benefit.

"Third, there must be sufficient finance to furnish subsistence during the process of realization of the ideas —"seed money"—as it were.

"Fourth, there must be men with talent—organized, trained, intelligent, responsible, and mutually regardful of human relations.

"Fifth, they must surround themselves with the services needed to support a going organization, services such as financial management, advertising, selling, planning, legal counsel, and research and development.

"Sixth, to prevent an enterprise from going stale and static, more and more ideas must be contributed and used throughout a continual cycle of processes — 'seeding in' necessary finance at each turn. The resultant crop is business."

Speaking on the topic, "Seven Men and An Idea," Mr. Murphy said: In 1915, seven men made a compact to pool their meager resources and embark upon a new venture of what is now Carrier Corp.

"At that time," Mr. Murphy pointed out, "air conditioning was unknown to the public and even to the experienced engineer it was only a matter of speculation."

Tracing Carrier's growth from a company with an original working capital of $35,000 to one which has a working capital of approximately $6,300,000 today and which, prior to the war, was doing business in 99 countries, Mr. Murphy went on to enumerate its accomplishments through the years. As listed by him they include:

"The conception of the theory of making good weather available to everyone.

"The conception and development of centrifugal refrigeration as a means of safety and economy in large capacity units.

"The first air conditioning of a railway car.

"The introduction of air conditioning to homes.

"The placing of controlled atmospheric conditions at the disposal of industry—as a means to improve quality and increase production.

"The opening of avenues of scientific investigation in stratospheric and other low temperature conditions on large scale projects.

"The unitization of air conditioning equipment.

"The conception and development of the conduit system of air conditioning multi-room dwellings."

Mr. Murphy concludes: "In a new industry, such as air conditioning, the initial experience is the hardest; the pioneer work is the slowest. Once the idea germinates in the minds of those who embrace its many ramifications, the fruits become widespread, and the results are almost startling. Instead of one idea, we soon have countless ideas, and instead of seven men, we have a giant industry.

"The seeds are planted. The harvest is ahead."

High Cost of Epidemics

The high cost of epidemics is well illustrated by the 1943 outbreak of infantile paralysis which was the worst in 12 years, the National Foundation for Infantile Paralysis points out.

Almost 12,000 persons — men, women and children—were stricken with this disease last year. Only twice before in the recorded history of infantile paralysis have there been more cases reported.

It costs about $1,800 to give a year's care and the Kenny treatment to one patient. Thus, if all of the 12,000 patients required one year of care and this type of treatment, the total cost would be $21,600,000 or 216,000,000 dimes.

Unfortunately, this is not required, for the dimes and dollars given by the American people materially lessened the toll by providing swift medical attention which spared many from crippling and also saved many dollars.

The total cost of the 1943 epidemic cannot be estimated because many of those stricken will still be patients in 1944 and some of them for many years thereafter, the National Foundation points out in making it annual appeal for funds Jan. 14 to 31 through the March of Dimes.

However, the high cost of the 1943 epidemic indicates the great necessity for continuing the fight to conquer this mysterious enemy and find the cause, prevention and cure of the disease.

KEROTEST Valves and Fittings are playing an important role in the Air-Conditioning and Refrigeration Equipment of Tomorrow

AND HUNDREDS OF IMPROVED APPLICATIONS NOW ON THE DESIGN BOARDS OF LEADING MANUFACTURERS

The important part **Kerotest** Valves are playing in the Air Conditioning and Refrigeration Plans for America after the peace is won, will be appreciably realized in the better performance and greater dependability of that equipment in operation, *tomorrow*.

Every **Kerotest** resource, now thrown whole-heartedly and completely into the great job of assisting our fighting men, will again contribute to the every-day comfort of the American way of life.

Kerotest manufactures the famous Diaphragm Packless Valves. Patents—U. S. Patents Nos. 1,890,505 and 2,061,028 —Canada Patent No. 340,598

KEROTEST Valves

KEROTEST MANUFACTURING COMPANY
PITTSBURGH, PENNSYLVANIA

Restrictions Ended On Copper Use In Fuses, Wiring Parts

WASHINGTON, D. C.—Restrictions on the use of copper and copper base alloy in renewable electric fuses and electrical wiring devices have been removed by WPB. Steel has been used in the manufacture of these products under the provisions of Orders L-161 (Electric Fuses) and L-277 (Electric Wiring Devices) since issuance of the orders in August, 1942, and April, 1943, respectively.

The return to permitted use of copper and copper base alloy, effected by amended versions of both orders issued today, will result in a considerable saving in man-hours, increased production, and more satisfactory products, it is said. Production of electric fuses has been seriously curtailed by the additional screw machine time required to process steel, and by the difficulty in obtaining prompt deliveries of steel rod. Wiring devices made from steel corrode after a few weeks' use, it has been found, and become inoperative.

Control over the distribution of the products remains unchanged, except that a rating of AA-5 or higher is required instead of a rating of A-1-j. This change is made to conform with over-all changes in the rating structure.

Non-renewable fuses are still subject to the restrictions on the use of copper and copper base alloy.

Refrigeration Supplies Distributors Get 6,000 Lbs. Copper Tubing Per Quarter

(Concluded from Page 1)

1943, may order up to 6,000 pounds of copper tubing in each calendar quarter for delivery to each distribution point.

A distributor who needs more copper tubing that is allowed under Direction 1, may write the nearest WPB field office for authorization to buy the tubing he needs, stating how much tubing he needs for resale and why he needs that amount.

Text of the order is as follows:

PART 3175—REGULATIONS APPLICABLE TO THE CONTROLLED MATERIALS PLAN
[CMP Reg. 9A, Direction 1]
COPPER TUBING FOR DISTRIBUTORS OF AUTOMOTIVE, HEATING, AND REFRIGERATION REPAIR PARTS

The following direction was issued pursuant to CMP Regulation 9A:

(a) **What this direction does.** This direction tells distributors of automotive equipment, heating equipment (gas or oil burning), and refrigeration equipment how to get copper tubing to sell to repairmen for use in repairing such equipment.

(b) **What distributors can buy copper tubing under this direction.** Distributors of refrigeration equipment, distributors of gas or oil burner equipment, and distributors of automotive equipment who were in business on Aug. 1, 1943 and who sold copper tubing for refrigeration, gas or oil burner or automotive repair purposes in 1941 may buy copper tubing under this direction. Warehouses who are authorized to replace brass mill stocks providing they file Form WPB-3007 may not obtain copper tubing under this direction.

(c) **How distributors get copper tubing.** A distributor of the kind covered in paragraph (b) may order for delivery in any calendar quarter up to 6,000 pounds of copper tubing. He may endorse his orders for this tubing with the CMP allotment number V-3 and the CMP Regulation No. 7 certification. An order bearing this endorsement signed manually, or in the way as described in Priorities Regulation No. 7 is an authorized controlled material order under all CMP Regulations. A distributor who had more than one distribution point on Aug. 1, 1943 may order up to 6,000 pounds of copper tubing in each calendar quarter for delivery to each distribution point.

(d) **How a distributor may apply for additional tubing.** A distributor who needs more copper tubing than this direction allows, or who is not permitted under this direction to buy copper tubing for sale for repair purposes may apply by letter to the nearest War Production Board Field Office for authorization to buy the tubing he needs, stating how much copper tubing he needs for resale and why he needs that amount. If he needs more than a total of 12,000 pounds a quarter, he should apply to the Copper Division, War Production Board, Washington 25, D. C., stating how much copper tubing he needs and why he needs that amount.

(e) **Persons to whom distributors may sell copper tubing.** A distributor may sell copper tubing bought under this direction only on an order placed under paragraph (c) of CMP Regulation No. 9A by (i) a refrigeration repairman (ii) an automotive repairman and (iii) a gas or oil burner repairman. In the latter case only copper tubing of a type suitable for use for repair of functional parts of gas burning and oil burning heating equipment (excluding piping system connected with such equipment) may be sold.

(f) **Restrictions on inventory.** A distributor may not accept deliveries of copper tubing ordered under this direction if his inventory of copper tubing already is, or will be, on accepting a delivery, more than a thirty-day's supply. However, if the supply of copper tubing which he has on hand is less than the permitted amount, he may accept delivery of the smallest commercial amount of that item of copper tubing which his distributor normally sells even if that will increase his supply beyond the amount specified.

(g) **Compliance with WPB orders and regulation.** Distributors operating under this direction must observe the restrictions of all applicable WPB orders and regulations. Attention is called to the provisions of M-9-c and M-9-c-4 which restrict the use of copper.

NOTE: This reporting requirement passed by Bureau of the Budget pursuant to the Federal Reports Act of 1942.

Issued this 22nd day of December, 1943.

CMP 9A Gives No Complete Parts Rating

WASHINGTON, D. C.—The term "repair parts and materials," as specified in CMP Regulation 9A, "does not include any complete item ordinarily used by itself," declares the War Production Board in Interpretation I to the regulation issued Dec. 15, which assigns an AA-3 preference rating to repairmen to buy parts and materials they need for repair work.

"For instance," the interpretation states, "a repairman can use the rating (AA-3) to buy grates which he requires in repairing furnaces, but cannot buy a complete furnace by use of the rating. Similarly, an industrial repairman could buy a gear needed to repair a lathe but could not buy a complete lathe."

Revised Schedule V (Commercial Boxes) To WPB Limitation Order L-126

(Following is the text of the revised Schedule V to Limitation Order L-126, as amended Dec. 29. Note that all reference to "reach-in" type refrigerators is omitted, thus making it possible for manufacturers to build such "reach-in" commercial refrigerators as they are permitted without any restrictions as to the materials that can be used.)

PART 1071—INDUSTRIAL AND COMMERCIAL REFRIGERATION AND AIR CONDITIONING MACHINERY AND EQUIPMENT
[Limitation Order L-126, Schedule V as Amended Dec. 29, 1943]
REQUIRED SPECIFICATIONS FOR COMMERCIAL WALK-IN REFRIGERATORS

Section 1071. **Schedule V to Limitation Order L-126** is hereby amended to read as follows:

§1071.7. **Schedule V to Limitation Order L-126**—(a) **Definitions.** For the purpose of this schedule: (1) "Producer" means any person who produces, manufactures, processes, fabricates, or assembles commercial walk-in- refrigerators.

(2) "Commercial walk-in refrigerator" means an insulated enclosure of either the prefabricated or sectional type, or built-in type, designed for non-mechanical (iced) refrigeration or mechanical refrigeration and furnished with or without low (pressure) side or high (pressure) side, having one or more entrance doors and of such dimensions that the products to be refrigerated or the major portion of such products, are not within convenient reach of a person outside of the enclosure.

(b) **Required specifications.** Pursuant to Limitation Order L-126 the following required specifications are hereby established for commercial walk-in refrigerators:

(1) No producer shall:

(i) Use any non-ferrous metals in the manufacture of commercial walk-in refrigerators except when used for the following (when not prohibited by the terms of any other order or any other schedule issued pursuant to Limitation Order L-126):

(a) High (pressure) side or condensing unit;

(b) Refrigerant connections between high (pressure) side and low (pressure) side;

(c) Electric current carrying apparatus;

(d) Controls and valves, or

(e) Galvanized coating on ice bunker (in nonmechanical types).

(ii) Use any ferrous metals in the manufacture of commercial walk-in refrigerators except when used for the following, (when not prohibited by the terms of any other order or any other schedule issued pursuant to Limitation Order L-126):

(a) High (pressure) side or condensing unit;

(b) Low (pressure) side or evaporator;

(c) Bolts, nuts, washers, cotter pins, nails, screws, door hinges, door fasteners, and meat hooks;

(d) Drains and drip pans;

(e) Thresholds;

(f) Ice bunkers (in non-mechanical types);

(g) Floors clad with metal not heavier than 22 gauge; or

(h) Wire mesh for rodent proofing.

(c) **Applicability of order.** (1) The required specifications established by paragraph (b) (1) shall not prohibit:

(i) The production, delivery, and acceptance of commercial walk-in refrigerators which are not in conformity with paragraph (b) of this schedule, for use aboard ship or at advanced bases by the Army or Navy of the United States, the Maritime Commission or the War Shipping Administration.

(ii) The delivery and acceptance of commercial walk-in refrigerators which were in a producer's stock in finished form on April 6, 1943.

(iii) The production, delivery, and acceptance of commercial walk-in refrigerators produced from fabricated parts which were in a producer's stock on April 6, 1943.

Issued this 29th day of December, 1943.

Birmingham Advertising Visions Postwar Kitchen

BIRMINGHAM, Ala.—A picture of "our future all-electric kitchen," together with a couple who are buying war bonds for its realization after the war is shown by the Birmingham Electric Co. in recent advertising.

The kitchen as pictured is large in size with dining space. Built-in features include range, refrigerator and dish washer.

"Jim and I have decided that the one thing we want most of all is an all-electric kitchen," says copy for the display, "We of course know that we can't have it now. We've got to win the war first. And so we are giving each other war bonds for Christmas. In this way, our money will be hastening Victory—and hastening the day when we can have this kitchen of our dreams—by providing more planes, torpedoes, bombs and such things."

Vermont Broadens Insurance on Food Stored in Lockers

MONTPELIER, Vt.—All fire and casualty insurance companies doing business in Vermont have been informed by State Banking and Insurance Commissioner Charles Burns that, effective immediately, marine or inland marine companies may provide multiple peril coverage on the contents of food freezer lockers. Previously the food contained in such lockers could be insured only against fire.

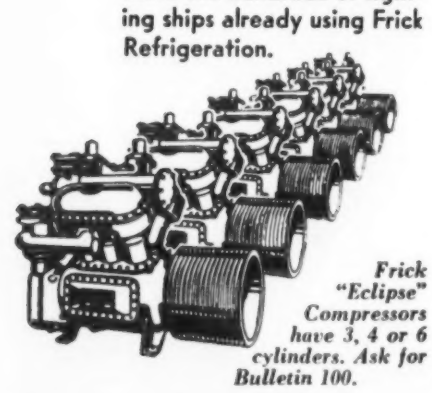
It was announced that amendment for application in Vermont to the Nationwide Definition and Interpretation of the Insuring Powers of Marine and Transportation Underwriters allowing multiple coverage on food storage lockers had been approved by the joint committee on interpretation and complaint.

50 New U.S. Aircraft Carriers being equipped with FRICK Refrigeration

They're being turned out fast (as many as 4 a month) at the Kaiser Shipyard in Vancouver, Wash. A number are already in service. This fleet of 50 ships, each bristling with surprises, will make things sizzle for the Japs.

Each carrier is being equipped with two Frick marine-type compressors, which provide refrigeration for making ice and for cooling four rooms, holding meats, fruits, vegetables, and dairy products.

Thus the U. S. Navy increases by half a hundred more the hundreds of fighting ships already using Frick Refrigeration.



Frick "Eclipse" Compressors have 3, 4 or 6 cylinders. Ask for Bulletin 100.

DEPENDABLE REFRIGERATION SINCE 1882
FRICK CO.
WAYNESBORO, PENNA. U.S.A.

Plastic PACKAGING

and Refrigeration

FROM a partial lifting of a strict blanket of military secrecy have come recent revelations of amazing developments in plastic packaging materials.

Sheer film . . . odorless . . . colorless . . . completely moisture resistant . . . leather tough. . . . proved in military usage to withstand sub-zero temperatures in the Arctics without congealing or cracking.

Such a boon to the frozen foods industry is obvious, and equally obvious is the imminent need for refrigeration units to contain such packaged foods:—

Huge boxes for year-round storage on the farm . . . cabinets for restaurants and institutions . . . chests for tens of thousands of retail stores . . . closures for hundreds of thousands of city homes and apartments.

Chieftain units are adaptable to all such applications and will be available as soon as the urgencies of war lift present limitations, just as Chieftain engineers are now available for consultation on all refrigeration requirements—present or postwar—in the frozen foods industry.

Chieftain TECUMSEH PRODUCTS CO.
TECUMSEH • MICHIGAN

V-200 THERMAL EXPANSION VALVE

Unsurpassed Sensitivity and Dependability

FEATURES

Readily removed orifice cartridges eliminates necessity for stocking several sizes for low tonnage installations.

Carefully lapped hard faced ball insures positive tight shut-off.

Thoroughly field tested.

Handles freon, methyl chloride, sulphur dioxide.

G|C

Write for Catalog 52

GENERAL CONTROLS
801 ALLEN AVENUE • GLENDALE 1, CALIFORNIA
Branches: Boston • New York • Philadelphia • Detroit
Cleveland • Chicago • Dallas • Denver • San Francisco

New Rules Set For Tax Amortization On War Plants

WASHINGTON, D. C.—Following the announcement that the President had signed an Executive Order transferring the certifying authority for tax amortization privileges from the Secretaries of War and Navy to the Chairman of the War Production Board, Chairman Donald M. Nelson said that with few exceptions the United States now has the capital equipment needed for completion of the war production program.

"The effort today therefore is directed, not to further expansion of plant, but to full utilization of existing capacity," Mr. Nelson said.

In connection with the administration of the certifying authority the following points are of special interest:

1. Taxpayers who wish to avail themselves of tax amortization privileges must hereafter file applications for necessity certificates from the War Production Board.

2. Effective Dec. 17, 1943, where new facilities have not yet been acquired or construction is not yet begun, the application for a necessity certificate must thereafter be filed along with the application for specific authorization or for priority assistance. Issuance of necessity certificates will not be considered unless these applications are filed together.

3. In such cases—where construction has not begun or facilities have not been acquired—applications for necessity certificates and applications for priority assistance should be filed with the agency with which the priority application itself would normally be filed.

4. In cases where construction was begun or facilities were acquired prior to Oct. 5, 1943, applications for necessity certificates should be filed only with the War Production Board.

5. The Facilities Bureau of the War Production Board, under the supervision of Vice Chairman Donald D. Davis, will handle the analysis of applications for tax amortization privileges. Roy W. Johnson, director of the Facilities Bureau, has appointed Carman G. Blough as deputy director of the Facilities Bureau for Tax Amortization, with authority to approve necessity certificates for the War Production Board.

Tax amortization privileges were written into the law in 1940, shortly after the start of the rearmament program, in order to encourage expansion of privately owned facilities of the national defense program. This was accomplished by insertion in the Internal Revenue Code of a new section—Section 124. The law as thus amended allowed taxpayers to write off the cost of facilities over a five-year period (or less should the emergency end sooner) instead of over the longer depreciation period where the facilities were necessary for national defense.

In the three years the law has been in existence, the War and Navy Departments have issued more than 29,000 necessity certificates for facilities having a value of approximately $6,000,000,000.

H. S. Boyle Takes Rubber Co. Post

DERBY, Conn.—W. F. Newton, general sales manager of the Sponge Rubber Products Co. here, has announced the appointment of H. S. Boyle as sales promotion manager on all products.

Mr. Boyle was, for a number of years, sales promotion manager of Servel, Inc.

York's Sales For Year Totaled $31,394,281

YORK, Pa.—York Corp.'s net sales for the fiscal year ended on Sept. 30 jumped to $31,394,281 from the previous year's figure of $22,541,345, according to the annual company report.

Net profit of the year was cut to $902,314, or 97 cents a share on 928,626 shares from the 1942 level of $1,067,127 by the big increase in Federal and state income and excess profits taxes, which totaled $2,196,000 compared with the previous year total of $716,000.

After contract terminations and price readjustments totaling $6,140,051, the uncompleted orders at the year's end amounted to $24,683,706, compared with $27,750,000 last year.

Landers, Frary, & Clark To Step Up Promotion

NEW BRITAIN, Conn.—Plans of Landers, Frary & Clark, electrical appliance manufacturers, for a national advertising campaign to promote postwar sales have been announced here.

Initial insertions in the campaign will appear in the February issues of national magazines and newspapers and trade publications will be used by dealers throughout the year.

Each advertisement contains a check list upon which readers can indicate household devices needed and submit to their community dealers. This arrangement, which the company calls "U Plan for V Day," is planned to eliminate a great deal of otherwise inevitable confusion in distribution after the war.

Advertisements also support war bond purchases and the campaign has been endorsed by the Treasury.

PURO ELECTRIC WATER COOLERS

Different models available for the various requirements of government agencies and war production plants.

PURO FILTER CORP.
440 Lafayette St., New York

DRINKING WATER SPECIALISTS FOR 40 YEARS

For your loyal patronage and fine cooperation in the past, Airo takes this opportunity to say "Thank you" to our many friends in the trade. And to all, "A Happy and Prosperous New Year."

AIRO SUPPLY CO.
2732 N. Ashland Ave., Dept. B, Chicago, 14, Ill.
WHOLESALE DISTRIBUTORS
Refrigeration Parts and Equipment

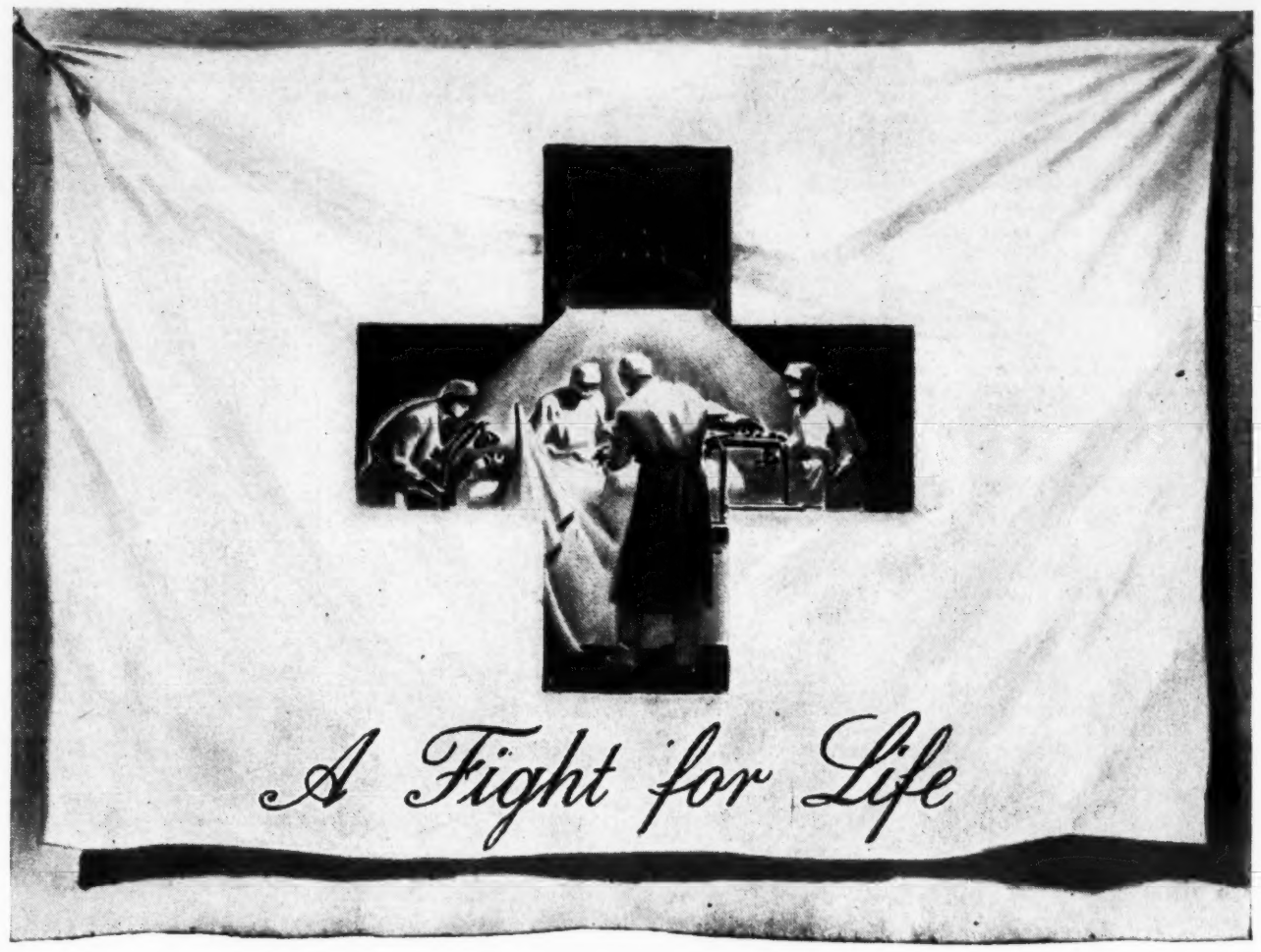
ARMY E NAVY

ORDNANCE TODAY-
BETTER REFRIGERATION TOMORROW

The fine tolerances of ordnance production come relatively easy to men trained in the modern M. & E. plant at Lancaster. The awards given were a natural outcome of manufacturing standards long established—and which M. & E. hope to continue in force when refrigeration manufacture is again resumed. The more important job today is to contribute to total Victory.

M&E EST. 1866

MERCHANT & EVANS COMPANY
PHILADELPHIA, PENNA. • Plant: LANCASTER, PENNA.



A Fight for Life

Working tirelessly, day and night, to save the lives of our wounded soldiers and sailors, stand the Army and Navy doctors and hospital attendants. To aid the wounded and maimed in their fight for life, and to help doctors and nurses to withstand the terrific strain of their arduous duties, operating, X-ray and recovery rooms on land and sea are kept comfortable with air conditioning. And refrigeration stands guard over vital serums, perishable medicines and blood. Without these, no amount of effort and devotion to duty would save so many of our fighting men.

Many thousands of Detroit Expansion Valves, Solenoid Valves, Controls and Contact Makers are in use in this life-giving service.

The reputation gained by Detroit refrigeration equipment in peacetime is being heightened by its performance in time of war.

The reliability of "Detroit" and "DL" Refrigeration Products assures the best possible results from refrigeration and air conditioning. If you have need for refrigeration equipment, specify "Detroit" for unfailing performance.

DETROIT LUBRICATOR COMPANY
General Offices: DETROIT 8, MICHIGAN
Division of American Radiator and "Standard" Sanitary Corporation
Canadian Representatives—Railway and Engineering Specialties Ltd., Montreal, Toronto, Winnipeg

★ "DL" Heating and Refrigeration Controls • Engine Safety Controls • Safety Float Valves and Oil Burner Accessories • Radiator Valves and Balancing Fittings • Arco-Detroit Air and Vent Valves • "Detroit" Expansion Valves and Refrigeration Accessories • Air Filters • Stationary and Locomotive Lubricators ★

Air Conditioning & REFRIGERATION NEWS

Trade Mark registered U. S. Patent Office;
Established 1926 and registered as
Electric Refrigeration News

F. M. COCKRELL, *Founder*

Published Every Monday by
BUSINESS NEWS PUBLISHING CO.
5229 Cass Ave., Detroit, Mich.
Telephone Columbia 4242

Subscription Rates
U. S. and Possessions, Canada, and all countries in the Pan-American Postal Union: $4.00 per year; 2 years for $7.00. All other foreign countries: $6.00 per year. Single copy price, 20 cents. Ten or more copies, 15 cents each; 50 or more copies, 10 cents each. Send remittance with order.

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VOLUME 41, NO. 1, SERIAL NO. 772
JANUARY 3, 1944
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Victory in 1944

PLENTY of bets that the war would be over by Christmas were paid off last week. Some of these bets were pretty big, too. What would lead some of the sanest, most conservative men we know to place bets like that? Well, they weren't so dumb as might appear now on hindsight. They "knew something."

For the last three months high executives have been returning from England, Sweden, and Portugal all hopped up—privately—about chances for an early peace. They have told their intimate associates what they had learned in London, Stockholm, or Lisbon—and thus was bred that quiet rumor which led so many to place their bets on an end to the hostilities with Germany by Christmas.

'THE DEAL WAS ON,' TRAVELERS SAID

The story that these returning travelers—including some of the highest governmental as well as business executives—brought back from abroad was that "the deal was on." Britain's diplomats, the world's best, had arranged a deal with a "German Badoglio," who was all set to unseat Hitler and turn Germany over without further ado.

According to this widely accepted story, all that remained was for Churchill, Stalin, and Roosevelt to get together and cement the bargain.

Well, then, what happened at Teheran? Why didn't the "deal" go through? We don't know, of course, and probably will have to await the publication of Roosevelt's Memoirs (or Churchill's) to find out what went wrong, or who jimmied the deal.

STALIN APPARENTLY FORCED THE ISSUE

One obvious guess is that Stalin nixed it. It does appear that he has finally won his point: the Second Front. Churchill has held out against the Second Front for two years and, apparently, would continue to hold out against it if Roosevelt hadn't sided with Stalin against Churchill.

There are stories of a considerable personal rift between Churchill and Roosevelt during the discussions at Teheran—the first time Roosevelt hasn't followed Churchill's lead almost implicitly. Nearly everybody has noticed that glum look on Churchill's visage in all the pictures to come from Teheran. (He was a sick man, of course, which could account for much.) However, all the "Big Three" did finally achieve an admirable unity of purpose, will and plan.

FIGHTING WILL BE FURIOUS, BUT WAR WILL BE SHORTER

At any rate, it does appear that the "deal" for an early peace was not made. Now we're going to fight it out.

Although this decision will mean terrible news for perhaps hundreds of thousands of anxious parents, it does not mean that a long war is in prospect. On the contrary, if our military forces can force their way past the formidable Nazi coastal defenses, they will find themselves for the first time in this war (on any front) amidst some of the most favorable terrain in the world for mechanized warfare.

3 OR 4 SIMULTANEOUS OFFENSIVES LIKELY

The assault upon the beaches of western Europe is probably due soon. April and May would provide more favorable weather for the amphibious attacks, but at that time weather is so bad in Russia that we could get little assistance from the East. It's entirely likely that there will be three or four great offensives launched against Hitler simultaneously from several directions, along with many smaller diversionary movements.

In the meantime, renewed emphasis on the actions of MacArthur and Halsey is to be expected in the Pacific. For awhile, with the ballyhoo surrounding the appointment of Mountbatten to head up a campaign through Burma, it was thought that MacArthur and Halsey were to become step-children. But the boys are too good. They will probably be given more and more stuff.

'AS GERMANY GOES, SO GOES THE JAP'

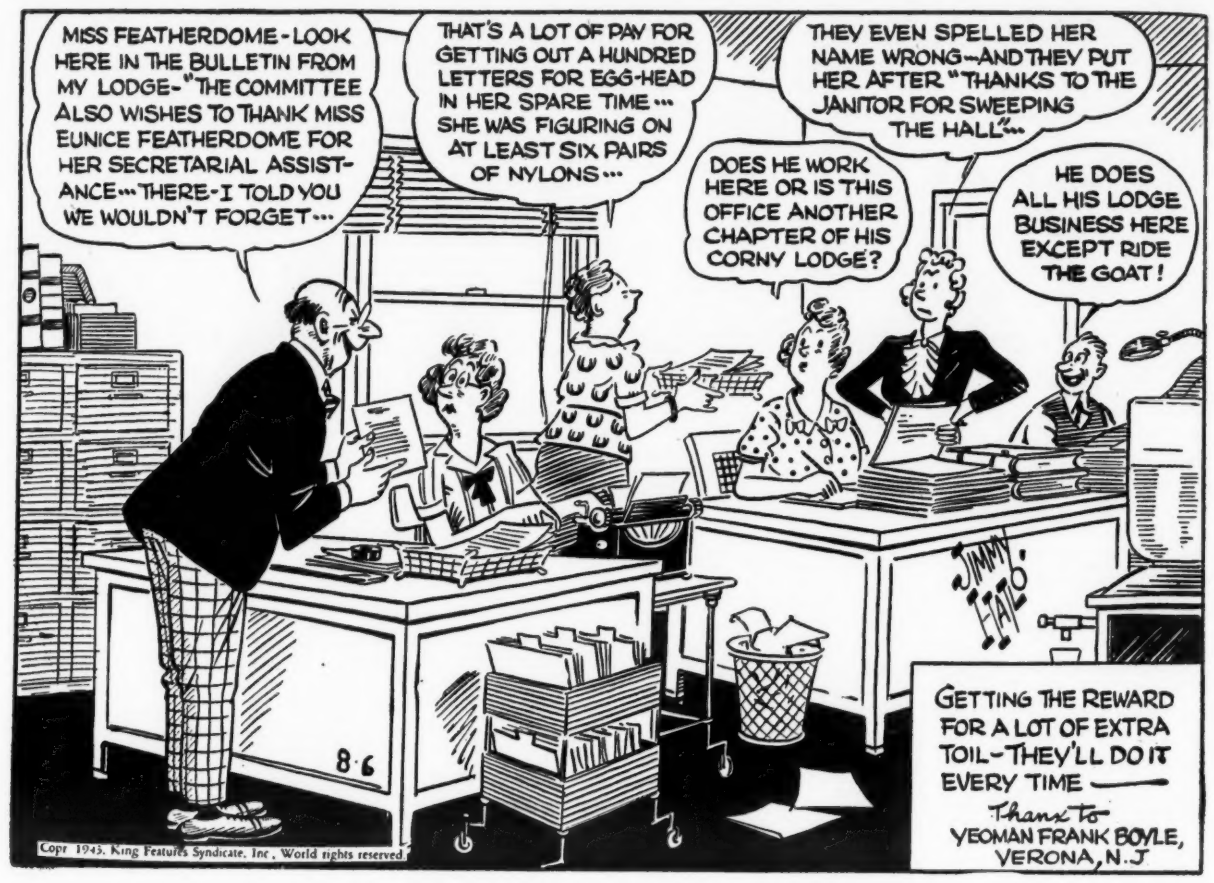
It is hoped that by the time Germany is washed up (many figure that six months will do it) MacArthur and Halsey will have succeeded in rolling the Japs back to points from which our new super-bombers can go to work on the Japanese mainland.

And then we shall see what we shall see.

In conclusion: Even if you did lose a bet on an early end to the war, don't be too pessimistic and miss the boat on your postwar planning. The end is still in sight.

They'll Do It Every Time

By Jimmy Hatlo


MISS FEATHERDOME - LOOK HERE IN THE BULLETIN FROM MY LODGE - "THE COMMITTEE ALSO WISHES TO THANK MISS EUNICE FEATHERDOME FOR HER SECRETARIAL ASSISTANCE··· THERE - I TOLD YOU WE WOULDN'T FORGET···
THAT'S A LOT OF PAY FOR GETTING OUT A HUNDRED LETTERS FOR EGG-HEAD IN HER SPARE TIME··· SHE WAS FIGURING ON AT LEAST SIX PAIRS OF NYLONS···
THEY EVEN SPELLED HER NAME WRONG--AND THEY PUT HER AFTER "THANKS TO THE JANITOR FOR SWEEPING THE HALL"···
DOES HE WORK HERE OR IS THIS OFFICE ANOTHER CHAPTER OF HIS CORNY LODGE?
HE DOES ALL HIS LODGE BUSINESS HERE EXCEPT RIDE THE GOAT!
JIMMY HATLO
GETTING THE REWARD FOR A LOT OF EXTRA TOIL - THEY'LL DO IT EVERY TIME
Thanks to YEOMAN FRANK BOYLE, VERONA, N.J
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LETTERS

BUENSOD-STACEY WAS MERELY CHANGING NAME

Buensod-Stacey, Inc.
60 East 42nd Street
New York, 17, N. Y.

Editor:

Of course you know I am an interested reader of your very good publication and every once in a while I see a little news item about this firm. In a recent issue on page 9, there is a little story that Buensod-Stacey seeks Pennsylvania Charter.

As a matter of fact we are incorporated under the laws of the State of Delaware and the information that you received from some source is a little misleading, only to the effect that we probably sought, and have to do under the law, the change in the corporate name from Buensod-Stacey Air Conditioning to our now corporate name of Buensod-Stacey, Inc.

You can see the article says: "for its operation here, the company will operate under a new name to be known merely as Buensod-Stacey, Inc."

At any rate, it is the same company except we left air conditioning out of the corporate name because the name was too long and we now are engaged more in heating, ventilating, and process piping than we are in air conditioning due to the restrictions that the war has imposed on the use of comfort air conditioning.

A. C. BUENSOD, President

'CONGRATULATIONS — AND MORE POWER TO YOU'

Refrigeration Supply Co.
2613-A Elm St.
Dallas, Texas

Editor:

Just read in a recent issue your "Inside Dope," and just want to say congratulations to you on your speaking out and more power to you—this with special reference to "John-the-Baptist, Watch This Gang," etc.

We have seen this thing for some time, and some of those who told us we were crazy two years ago, are coming around by degrees to seeing things the way we do. It's too bad that more people don't know about the Wirt incident.

U. C. BOYLES

OPA CHISELERS IRK FLORIDA SERVICEMEN

R. R. Story
Kelvinator Authorized Service
1602 Landor Avenue
Jacksonville, Florida

Dear Editor:

Have just received our copy and on page one read the report of Fink of Los Angeles getting a year for price ceiling violation.

I am one of those chumps that salvages these machines for parts while second hand furniture dealers and so forth all around us are selling such cripples as Majestic, old Grunows with outmake units for such fantastic figures as $125 to $175 and they have every complaint in them that could be found in a refrigerator. The selling dealer never has a serviceman and don't do anything about it once they get their money.

Neither does OPA do anything about the violation, no matter how many violations are found. OPA tells us they have had them on the carpet and "gave them a good talking to." This penalty generally leaves us talking to ourselves but the sales go right on and we can sit and count up how many dollars we are losing by observing this law if it is a law.

R. R. STORY

'THIS HITS THE NAIL RIGHT ON THE HEAD'

Refrigeration & Air Conditioning Assn.
626 Broadway, Cincinnati, Ohio

Editor:

Thank you very much for your editorial on "Keep Surplus Materials Away From Speculators."

This hits the nail right on the head and I will see to it that it gets before the next meeting of this association and that action is taken on the P. S.

A. BACHMAN, Secretary

IS THERE 'CODE OF ETHICS' FOR DISTRIBUTORS?

W. H. Bintz Company
433 West Third South St.
Salt Lake City, Utah

Editor:

As a member of the Post War Planning Committee of the Electrical League of Utah, I have been requested to secure copies of any "Code of Ethics" covering the Electrical Distributors and/or Dealers that might be in existence in any place in the country.

It occurred to me that if any "Code of Ethics" might exist among the industries, you would know about it and either have or be able to secure a copy of same.

Anything that you can supply us with that might help us to develop a local "Code of Ethics" will be very much appreciated by every member of the Utah Electrical League.

PAUL J. DEVINE, General Sales Manager

Fedders Will Close Ordnance Division

BUFFALO, N. Y. — The Fedders Mfg. Co. has been increasing production of water coolers for the armed services and industrial requirements and beginning in 1944 will close its ordnance division which has been turning out millions of machine-gun links weekly, General Manager Edmund R. Walker announced. The company at the same time expects to begin making military aircraft heat-exchange equipment.

"Production of the aircraft heat exchangers will result in no substantial reduction in our working force," said Mr. Walker.

"In shifting over to a business in which we have been engaged for 48 years, we will be in an excellent post-war position. We are fortunate in being able to make the change at this time."

4½ Million Radio Tube Production Planned For Civilian Use

WASHINGTON, D. C.—A definite program for the production in the first quarter of 1944 of at least four and a half million radio tubes of critical types for civilian receiving sets was announced late in December by the Radio and Radar Division of WPB.

These tubes for household type radio sets are being scheduled for production in sizeable quantities by plants best equipped to produce them, the Domestic and Foreign Radio Branch of the Radio and Radar Division said. The civilian tube problem may not be a complete solution of the home radio set problem, but will serve to put back into service thousands of the sets which have been "blacked out" by limited tube supplies, according to WPB. It is expected that tubes will continue to reach civilian outlets in increasing quantities as the new program gets under way.

The "hard-to-get" types of tubes which are being pushed are 12-SA-7, 12-SQ-7, 12-SK-7, 50-L-6, 35-Z-5, 35-L-6, 1-H-5, 1-A-7, 80 and other critical types which have not been produced in sufficient numbers, due to military requirements. All the foregoing tube types bear the suffix "GTG."

These tubes will be marked "MR" for maintenance, repair, and operating supply purposes, and therefore cannot be sold on rated order, preventing diversion from civilian channels, under the terms of Limitation Order L-265.

The cooperation of radio service men and dealers is expected in seeing that these tubes first reach those householders who have no sets in operation because of lack of tubes.

McCray Selects Agency For Advertising Drive

KENDALLVILLE, Ind.—John W. Hart, vice president and general manager of McCray Refrigerator Co., producers of commercial refrigerators, announces the appointment of Evans Associates, Inc., Chicago, as advertising council.

The 1944 promotional program calls for intensified promotion in media and direct mail, with additional emphasis on post-war marketing.

Filtrine HIGH EFFICIENCY

WATER COOLERS
for
DRINKING WATER — FILM PROCESSING
X-RAY — BAKERY SERVICE
JACKET COOLING — SCUTTLE BUTT
INDUSTRIAL PURPOSES — WELDING TIPS
SHIPBOARD (SPECIAL MODELS)
Self-contained and Remote Models
5 to 150 gals. storage.
QUICK SHIPMENT
Forty years of experience in building special cooling equipment.
Send us your problems.
FILTRINE MANUFACTURING CO.
53 Lexington Ave., Brooklyn 5, N.Y

Wm. Robertson Named Service Assistant By Westinghouse

SPRINGFIELD, Mass. — William Robertson, member of the British Royal Navy Transport Service in World War I, has been appointed assistant to the service manager at the Westinghouse East Springfield Works, according to an announcement by L. K. Baxter, manager of the service department, Westinghouse Electric Appliance Division.

Associated with the company since 1931, Mr. Robertson replaces Howard Blair, who was transferred to the air conditioning department of the Westinghouse Elevator Co. at Jersey City.

Present duties of Mr. Robertson include servicing military communications equipment for war planes and ships; gun stabilizers for tanks; motor-driven appliances; commercial and domestic refrigerators, and air conditioning equipment. His postwar work will cover service operations for all appliances made at the Westinghouse East Springfield Works.

Mr. Robertson was born and educated in London, where he served a seven-year apprenticeship as a steam engineer. When the first World War started, he resigned his position as a smelting plant maintenance engineer in New South Wales, Australia, to join the engineering branch of the British Navy.

After the war he entered Southern's Marine Engineering Academy at London, graduating in 1923 and coming to the United States.

Travers Leaves Crosley For Agency Post

CHICAGO—Ellis Travers has joined Roy S. Durstine, Inc., advertising agency, to manage the agency's new office being opened here.

Mr. Travels, who resigned as director of advertising and public relations of Crosley Corp., was until 1942 vice president of Ruthrauff & Ryan and head of the Detroit office.

Liquid Carbonic Earnings Drop Slightly

CHICAGO—Liquid Carbonic Corp. earnings for the year ended Sept. 30 dropped to $1.61 a share from $1.80 earned last year.

WPB Appoints Boulware Vice Chairman

WASHINGTON, D. C.—Lemuel R. Boulware has been appointed operations vice-chairman of the War Production Board. Mr. Boulware succeeds Hiland G. Batcheller, resigned.

In his new capacity, Mr. Boulware will assume direction of all industry operations and divisions except the Steel, Copper, Aluminum and Magnesium Divisions, and the Minerals Bureau. These metals and minerals groups will subsequently be organized under a separate vice-chairman.

Mr. Boulware has been with the War Production Board since March 30, 1942. Recently he has been deputy controller of shipbuilding. He was once vice president of Carrier Corp.

It's Time To Tell About REFRIGERATION'S HIDDEN SERVICES

REFRIGERATION today is adding millions of pounds of sugar to America's production — EXTRA pounds that might otherwise never have reached market. Sugar refineries, by standard concentration and crystallization methods, usually recover only about 80% to 85% of the sucrose available in sugar beets. But by a special precipitation process involving special coolers under accurate temperature control, much of the additional 15% to 20% is now extracted — a little-known service of refrigeration that is more important today than ever before.

A-P DEPENDABLE Refrigerant Valves are performing their accurate, supersensitive refrigerant control-duty on many of these "hidden" services of refrigeration, both in civilian and in wartime applications. And back in the A-P research laboratory, men, skilled, experienced engineers, designers, technicians, are again ready to put their knowledge of intricate control problems to use in helping post-war planners in the development of new peacetime products. Use this service — to YOUR profit.

AUTOMATIC PRODUCTS COMPANY
2450 North Thirty-Second Street • Milwaukee 10, Wisconsin
Export Dept.: 15 East 40th Street, New York City 16, New York

Thermostatic Expansion — Solenoid — Constant Suction Pressure — Water Regulating Valves — "Trap-Dri" System Protectors — Water Solenoids — Cooling Thermostats.

DEPENDABLE
REFRIGERANT VALVES

STOCKED AND SOLD BY PROGRESSIVE REFRIGERATION JOBBERS EVERYWHERE
—USED AND RECOMMENDED BY LEADING SERVICE ENGINEERS

Illinois Firm Rebuilds, Guarantees Hermetically Sealed Units for Dealers

Service Parts Co., Now Five Years Old, Started With Two Men In a Small Garage

By Ross Potter

MELROSE PARK, Ill.—For a company that started out five years ago as a one-brand parts outfit in a small Chicago suburb, the Service Parts Co. of Melrose Park, Ill., is doing something of a refrigeration unit rebuilding and repair job today. The firm completely rebuilds more than 250 hermetically sealed units every 30 days, and fills between 500 and 600 parts orders coming in from every state in the Union.

The infant company set up shop in 1938 in a 20 x 40-ft. garage behind 1101 24th Ave., handling just Majestic parts. Pat Ravanesi was 29; he had a little money and 10 years' mechanical experience picked up here and there. Al Gatz was 30; he had worked for Majestic for 15 years, and he'd saved up a little money too. Majestic was going strong then, and both youngsters wanted a business of their own. A parts shop seemed to be it.

They sent out postcards to 30,000 names taken from a national mailing list, advertising themselves as handling a complete line of Majestic parts. Actually their line was far from complete, but what they didn't have, they figured they could get.

Their first order, however, turned out to be a request to repair two Majestic units. Well, what the hell, was their reaction. If Pat could shop around and pick up the necessary tools by the time the units arrived, Al could take 'em apart and put 'em back together again. They did.

Business was brisk. Before the year was out Pat's father added a 40 x 40-ft. extension to the garage, with a story overhead to use as an office and stockroom. They had been keeping their records in the house until now. Pat lived upstairs.

They expanded their advertising a little, too. In 1939 it was a two-page circular. In 1940, a 16-page catalog. Most of their business still came in from neighboring cities and from a few firms in Indiana and Ohio, but an increasing number of requests for Grunow servicing led them to add enough equipment to handle that line, too.

By 1941, with four servicemen working for the company, business once again was overflowing the shop's capacity. The first half hour of each day was spent pushing the units not actually being worked on out onto the sidewalks, to make room for getting to work on the day's schedule. And again at night another half hour, for pushing everything back in and locking up.

The need for more room was evident, but cash reserves weren't big enough to allow buying much larger quarters. They hurdled that obstacle by bringing another partner into the setup, Ed Jaske, an enthusiastic fellow their own age who brought with him five years of radio experience and enough capital to let the partnership expand geographically.

Thus in December they moved into the building of a local dairy concern that had gone into bankruptcy, and before the turn of the year an operations and assembly line was moving at the plant's present location at 2511 Lake St. The building was brick, 60 x 120 ft., with a roof two stories high.

The property ran 257 ft. along Lake street and 590 ft. back, giving them plenty of room to expand. This they did again a year and half later, in July, 1943, building a 60 x 132-ft. addition extending westward along the avenue. The plant now covered a full 20,000 feet of floor space.

Divided laterally, the northern half of this new addition was partitioned off to be used as a storage shed 30 x 132 ft., the southern half to be redivided into a display room, spare parts department, finished jobs room, loading and receiving dock, and unpacking and checkroom (see sketch).

Over the southern half an additional story was constructed that houses the company's administrative offices and a crating room where incoming crates are labeled and held until a unit is ready to be shipped back to the sender. A ramp leads down to the loading platform, which is halfway between the first and second floors.

The open field in back of the plant was put into service. Its open area offered a good place to empty incoming units of SO_2. Here the units stand until safely free of the toxic gas.

The company went through the same difficulties of getting parts and materials that everybody else did during 1941. PD-1A's kept them going with six-weeks lots at a time, and when some Majestic and Grunow parts became harder and harder to get, they were able to convert parts from other kinds of units and make them do.

Completely rebuilt Grunow units and compressors are no longer available on an exchange basis, but the company still accepts them for repair, and still replaces wornout parts under the full year's unconditional guarantee that goes with every job they turn out. Majestic, Westinghouse, and G-E units are still exchanged or rebuilt, on order.

The difference between an exchange and a straight repair proposition became significant when the Federal excise tax was imposed on exchanged units. Under the government's definition, the introduction of one substitute part into a unit brings the job into an exchange classification, whether that part is new or not. And the tax is a considerable item. But repairs alone are not taxed.

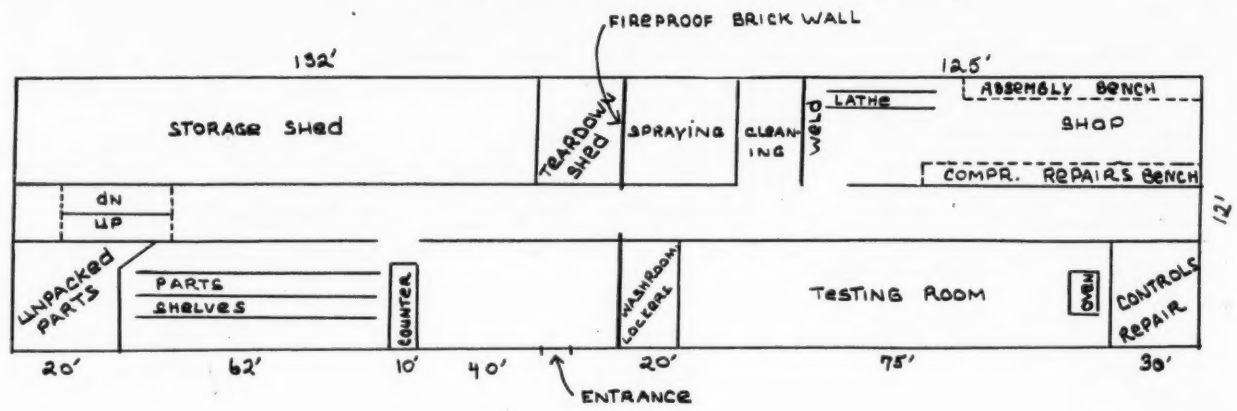
Because of this, units sent in to be repaired only are carefully dismantled in the receiving and checking room, each part is labeled and specifically routed, and the repaired unit is sent back with exactly the same parts that were in it when it came.

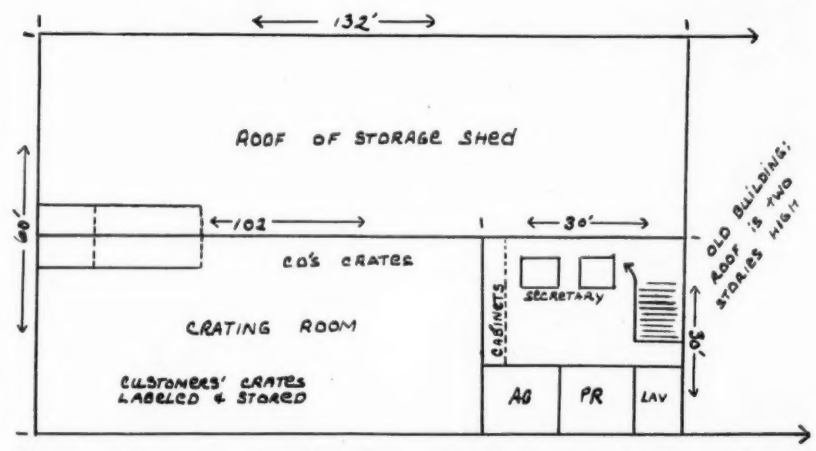
When the PD-1A's were superseded by CMP-4B's, parts difficulties generally eased up. Interim slips were allowable under this setup, to take care of emergency shortages. Today the company already has filed and received clearance on its 1944 allotment.

The difficulty lies rather in getting

(Concluded on Page 11, Column 1)

Below, floor plan of the shop (right of the firewall), and of the first story of the building's new section (left). The plant is 60 ft. wide, and the 12-ft. aisle runs the length of the building exactly through the center. Loading platform is at West end of aisle (left).





Above, plan of second story of the new section, showing administrative offices.

* * *

In the important home front "battle" to keep refrigeration equipment functioning, Penn automatic controls are dependable "weapons." The superior qualities embodied in the complete line... the efficient service of each of these units... have won for Penn controls an outstanding acceptance in the field of commercial refrigeration.

Penn offers pressure and temperature controls in both single and double pole, with or without calibrated adjustments, for single phase or polyphase service. Our line includes controls for all "above freezing" applications—and in addition, controls for temperatures as low as −100° F; pressure controls for as low as 28" vacuum.

Penn can supply these controls for all refrigeration requirements, for new installations or replacements, under the established priority rules. Ask your jobber—or write direct, no obligation. *Penn Electric Switch Co., Goshen, Indiana.*
In Canada: Powerlite Devices, Ltd., Toronto, Ontario.

A Star . . . for continued Excellence in Production

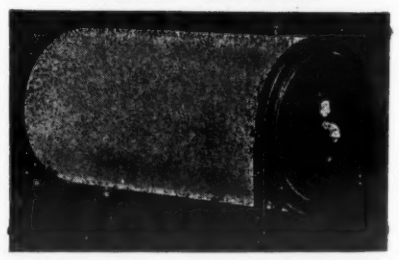
PENN

AUTOMATIC CONTROLS

FOR HEATING, REFRIGERATION, AIR CONDITIONING, ENGINES, PUMPS AND AIR COMPRESSORS

"DAY & NIGHT"

STORAGE TYPE TANKS SAVE SPACE



Compact "Day & Night" Storage Units, such as the Model CE-25 shown above, may be installed any place . . . on walls or ceilings . . . or integral with condensing unit . . . wherever cold water is required for drinking, jacket cooling, photographic processes, cooling welding tips, etc. A modern Scuttlebutt for shipboard use. Supplied on storage capacities from 6 to 100 gallons.

Write For Latest Data

COOLER DIVISION
DAY & NIGHT MFG. CO.
MONROVIA · CALIFORNIA
FACTORY REPRESENTATIVES
NEW YORK — A. C. Homeyer, 682 Bdwy. · Marc Shantz, 565 Wash. Blvd. — CHICAGO
ST. LOUIS — B. H. Spangler, 3331 Market St. · J. E. Parker, 228 2nd St. — DECATUR, GA.

Your refrigeration parts and supply house in Central New York and Northern Pennsylvania.

TED GLOU
CENTRAL SERVICE SUPPLY CO.
409 E. Jefferson St., Syracuse, N. Y. — Phone 5-4000
209 Jefferson Ave., Scranton Pa. — Phone 3-4000

Former Grunow and Majestic Dealers Find Repair Haven for Their Orphans

(Concluded from Page 10, Column 5)

parts from manufacturers that now are up to their ears in direct war production. It doesn't pay such a manufacturer to set up his machinery for a few hundred refrigeration parts unless he charges exorbitant prices.

But WPB, on the other hand, discourages any order large enough to cover more than a 60-90 days' reserve. The refrigeration repairman is caught between the two, and as a result has to pay so high a figure on such parts as electrical relays that he actually takes a loss in handling that part. For that reason most former distributors, Service Parts Co. included, cannot wholesale these any more. They order enough for their own operations, and that's all.

pounds of methylene chloride in a jug that ordinarily holds 11, thus allowing for considerable expansion. But even this is not enough under conditions of high temperature.

Add to this the breakage factor consistent in shipping in glass containers, and you have a loss figure running well over 25%. Pat is working on an appeal for can containers, but so far nobody has given him the answer he wants.

Selective Service requirements make the shop's 1944 schedule uncertain. Of the shop's 16 repairmen, 12 are up for reclassification during March. So is the company's stock handler, a man that the draft board may call replaceable. But who can you get to replace him these days, says Pat? Nobody!

Part two, describing the exact service operations and procedure followed by Service Parts Co. in tearing down and rebuilding hermetically sealed units, together with a discussion of the special equipment used, will follow in the Jan. 17 issue of the News.

The call of the armed forces has been acknowledged here, too, taking men who cannot be replaced under any circumstances today. The company's two specialists in expansion valve and open compressor repairs both were called late in December, 1942, and the company has had to close shop on those operations for the duration.

The majority of smaller jobs handled these days are hermetically sealed motor windings, cold controls, floats, fans and fan assemblies. Parts orders have increased proportionally throughout the past year, partly because the company began the war with a good reserve supply and so can still fill them, partly because complete unit production has suffered from obstacles outlined above.

The company has had to post notice of a 90 days' wait for compressor repairs, 60 days for cold controls, 30 days for small repairs. Small parts orders are filled immediately if in stock, and if any portion of the order is not immediately fillable, the order is acknowledged by mail, with an approximate date indicated upon which the customer can expect future delivery.

Other shortages come into the picture every now and then. With the scarcity of tin for cans, methylene chloride, for "Carrene" in Grunow units, has had to be shipped in glass containers. But you can't seal a bottle the way you can a tin can, and the pressure built up by temperature rises can force the tin cap, causing leakage.

The company has controlled this to a degree by shipping only nine

Ed Jaske is already somewhere in England with the Army's Signal Corps. Pat is due to come up for final review any day now. If he doesn't go, he'll finish up an 82-page catalog planned for April, listing all former parts and operations now discontinued for the duration, and featuring a complete line of genuine Delco and Wagner motor parts.

And of course business goes on in spite of troubles. In a way, they have no alternative, as Pat puts it. The ordinary service shop has no facilities to handle hermetically sealed units, and there's no factory you can send Majestic or Grunow units to. Who else is going to service them?

The company isn't just a local outfit any more. It used to be that most of their business came from the Ohio-Indiana-Illinois circuit. Today that territory represents perhaps 10% of the whole, with New York, Texas, and California among the heaviest contributors in the book.

What the company needs most is between 15 and 20 more trained servicemen, according to Pat. As it is, with orders coming in at their present rate, he only wonders how come they aren't farther behind schedule than they are.

(A complete description of the step-by-step procedure followed by Service Parts Co. in rebuilding hermetically sealed units, together with a discussion of the special equipment used, will be presented in the Jan. 17 issue of the NEWS.)

Cutler-Hammer Income Ahead of 1942

MILWAUKEE — Cutler-Hammer, Inc., has reported net income for nine months ended Sept. 30 equal to $2.32 a share on the 659,998 shares of capital, after setting aside a one million dollar contingency reserve.

It is expected that the company's earnings for the year will run ahead of the $1,510,782, or $2.29 a share reported for 1942.

OPA Revises Prices on Oil Burner Conversion

WASHINGTON, D. C.—The Office of Price Administration has announced a major revision of the regulation applying to parts for conversion of oil-burning heating equipment to solid fuel.

Maximum prices previously established on the basis of the weight of the boiler parts used for conversion purposes in the 17 Eastern states will be permitted to revert to a "piece" basis. Dollars-and-cents prices originally established for the Eastern states for a group of specialty units used solely for conversion purposes will be extended to the remainder of the country.

The revision of MPR 236 returns all individual boiler parts ordinarily used for repair purposes to Maximum Price Regulation 188 (Manufacturers' Maximum Prices for Specified Building Materials and Consumers' Goods) when sold by manufacturers, and to the General Maximum Price Regulation when sold by jobbers and dealers uninstalled. When sold installed, the parts are subject to Maximum Price Regulation 251.

For sales of complete units, or "conversion kits," the revised regulation establishes dollars-and-cents ceiling prices both on an installed and uninstalled basis in all the 48 states and the District of Columbia.

The ceiling prices established are for 10 types of specialty units, produced by 12 manufacturers. Prices vary from $32.95 to $107.95, depending upon the size of unit and number of parts included in each. All dollars-and-cents ceiling prices are listed on an installed basis for the product.

Maximum prices for sales of the conversion units on an uninstalled basis may be computed as follows: The seller determines the installation allowance by securing quotations from one or more persons performing mechanical installation services in his local area; then the seller subtracts the amount of the lowest quotation from the installed price. The amount remaining constitutes the uninstalled maximum price.

The regulation also sets forth the method for computing the maximum price for the installation service when done by persons other than the seller of the conversion kits.

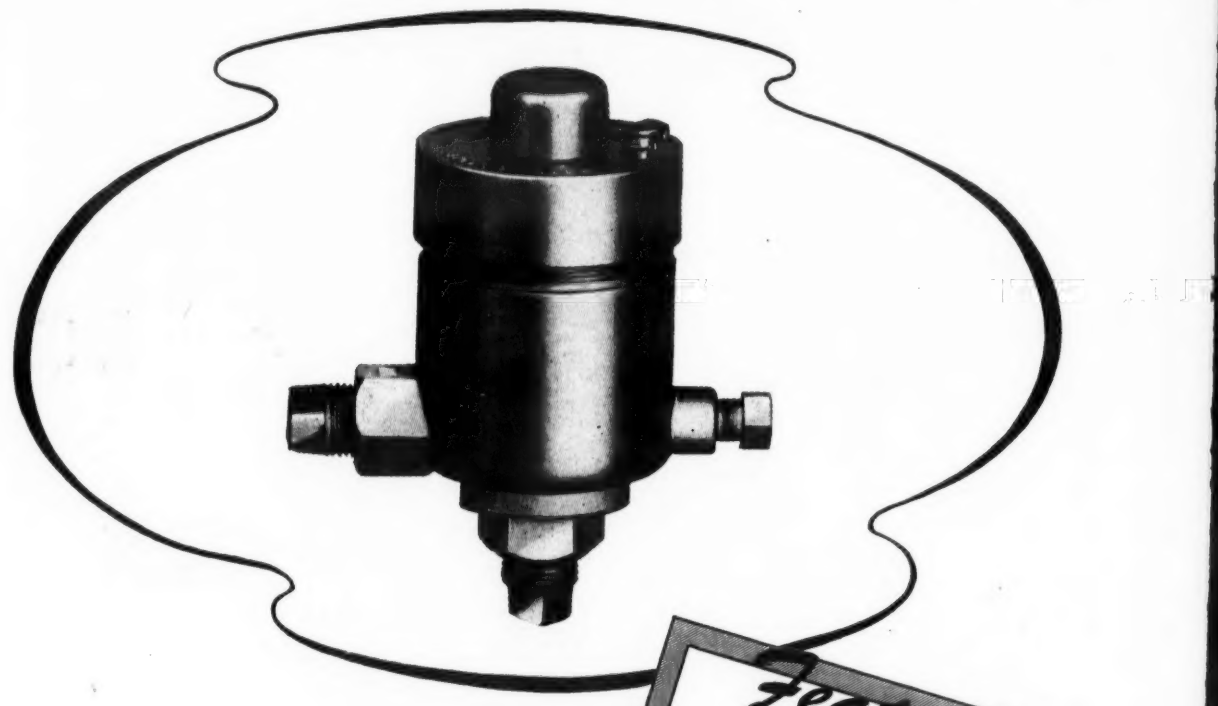
Except for the specified special units, OPA said, sales of individual metal parts used in the conversion of fuel burners will come under Maximum Price Regulation 188 in the case of manufacturers, and under the General Maximum Price Regulation in the case of all other sellers.

WAR INDUSTRIES NEED REFRIGERATION

The use of refrigeration in industry has been greatly accelerated by the war. In peacetime this expansion may logically be expected to continue. Write for literature.

GENERAL REFRIGERATION DIVISION

CONSTANT CONTROL WITH *Temprite* VALVES



WHEN Temprite Constant Pressure Two-Temperature Valves are used, constant temperatures are assured at all times and the performance of the refrigeration system is greatly improved.

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The Temprite Two-Temperature Valve is an essential part of any multiple type refrigeration system and is also recommended for use on single applications where closer and more constant regulation is required than can be furnished by the condensing unit control switch.

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Army Refrigeration Problems

By P. B. Reed

Electric Refrigeration and Air Conditioning Division, Servel, Inc.

Care and Treatment Of V-Belts

Even in normal times it pays to not mistreat V-belts, but in war times, with the scarcity of rubber and the shortage of skilled labor, it now becomes a duty to treat V-belts tenderly so as to get the maximum life from them. The service engineer can do much to prolong the life of V-belts by recognizing some simple facts of V-belt construction and taking some precautions against mistreatment of the belts.

A V-belt is made of rubber and cotton fibres formed under pressure and heat, in much the same manner as an automobile tire is built. Before the war the rubber was from natural crude but now it is mostly reclaimed rubber. Although the present belts will not stand the abuse that prewar belts would, they will give satisfactory service for many months but it is more than ever necessary that they not be abused. V-belts will be harmed by anything that:

1. Bends them at too sharp an angle.
2. Stretches them excessively.
3. Causes them to overheat.
4. Twists or bends them sideways.
5. Attacks the rubber or cuts the fabric.

DO NOT PRY OR RIM A BELT

If a V-belt is bent at too sharp an angle the fibres are broken and the rubber and fibres are pulled apart internally and this will eventually cause the belt to break. Never pry belts off or on the pulley with a screwdriver or other instrument.

Do not "rim" a belt; that is, do not put it on one pulley and then roll it on the other pulley causing the belt to be twisted or climb the sharp edge of the pulley. Put on or remove V-belts by loosening the motor and moving it closer to the compressor so that the belts go on or off easily.

MOTOR PULLEY SIZES

If the motor pulley is too small in diameter the belt is bent at too short a radius; moreover, there is not enough area of contact with the motor pulley, therefore, the belt will slip and overheat. The minimum size of motor pulley that may be used depends upon:

1. The load to be carried.
2. The cross-section (size) of the belt.
3. Type of belt.

In general, the larger the load the greater must be the diameter of the motor pulley; the larger the cross-section of belt the larger must be the diameter of the motor pulley. The small cross-section belts ($13/32$ inch wide at top) are more suitable for small diameter motor pulleys and in the event that space requires a small compressor pulley and consequently a small motor pulley, it is sometimes necessary to use two $13/32$ inch belts instead of one ½ inch belt even on a ⅓-hp. unit for the ½ inch belt would be too thick to properly bend around a small pulley, smaller than about 2¾-inch diameter.

Condensing unit manufacturers select their belt sizes and motor pulley sizes according to tables and data supplied by the belt manufacturers and the service engineer will be well advised to use care in changing to smaller diameter motor pulleys. He may find that with the smaller pulley, he is forced to run the belt so tightly as to result in greatly shortened life of the belt.

HARMFUL BELT TENSION

Pulling a V-belt too tightly is a confession that it is being asked to carry more load than it should; that the drive is incorrectly designed and the belts misapplied. This may be because the motor pulley is too small, because the pulley grooves are at the wrong angle, because two belts should be used instead of one, because the pulley are on too close centers or other reasons.

Merely pulling the belt or belts tighter is but a way of "getting by" temporarily but at the expense of short belt life and probably excessive bearing wear and seal trouble due to the heavy pull against the bearings and the seal. "Stretching" the belt causes breakage of the fibres in the belt and their separation from the rubber.

HEATING OF THE BELT

Running the belt too tightly wedges the belt down more tightly into the belt grooves causing deformation of the belt and heating due to excessive friction between belt and pulley. Excessive heating may also be due to too loose a belt in which the belt slaps and flops, resulting in abnormal flexing of the belt causing internal heat to devlop.

Heat tends to cause separation and deterioration of the belt materials. V-belts are built to withstand temperatures up to about 130° F. If, due to high ambient temperatures and radiation of heat from motor, gasoline engine, condenser or compressor, temperatures run above 130°, special heat-resistant belts may be secured from the belt manufacturer, that will give satisfactory life in temperatures up to 200° F.

It is difficult to put in words just how to judge the proper tension of V-belts; that is, how tight to adjust them. One rule is to have them so that with thumb and forefinger a V-belt can be readily twisted ¼ twist.

Another rule is that, midway between motor and compressor the belt may be moved upward or downward about ½ inch from its normal position. The experienced mechanic gets to know the "feel" of the belts, and to judge whether the belts are too tight or too loose by the feel.

BELT ALIGNMENT

Probably more V-belts are damaged from running them out of line than from any other cause. If the motor pulley groove and the compressor pulley groove are not in line, the belts will be forced to weave and flex hundreds of times per minute which will break the belt down internally, but, more serious is the excessive wear and damage to the belt side wall resulting from the tendency of the belt to try to climb up on the pulley groove. Pulleys must be lined up or belt life may be only a matter of days or weeks instead of months or years.

In some designs of machines, especially vertical models, the motor and compressor shafts may be parallel with one another in one plane but not in the other, that is, one shaft may tend to point upward and the other downward. This causes the belt to twist hundreds of times per minute and of course reduces the belt life.

DIRT DUST, AND OIL

Machines are sometimes installed in dusty, dirty places such as coal bins. The dust acts as an abrasive which cuts the belt and soon destroys it. Avoid such locations. The life of V-belts is lessened by getting oil on them. Oil softens natural rubber and the belt soon deteriorates.

When oiling the motor, be careful not to over-oil it, for the excess oil runs down on or is thrown on the V-belt. If, due to the application, it is necessary for the belt to be exposed to oil, get in touch with the belt manufacturer. He can supply special belts made from synthetic rubber which is much less affected by oil than natural rubber.

MULTIPLE V-BELT DRIVES

A single belt is used up to only about ½ to ¾ hp. On the larger size machines multiple V-belt drives consisting of as much as 12 belts are used. There are several factors in connection with these multiple V-belt drives that deserve mention. Especially in the larger sizes, these belts are costly—as much as several dollars apiece—so that considerable money is involved in just one set of belts and it therefore pays to take care of them.

Multiple V-belt drives should be purchased in matched sets so that each belt has the same length when under normal tension. This is determined on special equipment by the belt manufacturer. In unmatched sets one belt may be slightly short and will therefore carry most of the load until it breaks down enough and stretches to the same length as the other belt; but is apt to wear out before the other belts.

Particularly watch the tension of multiple V-belts. They are heavily loaded and if they are run too tightly or too loosely, they will get quite hot—actually hot to the touch. The larger machines are rarely equipped with automatic belt tighteners but most machines have methods for easily and accurately adjusting belt tension.

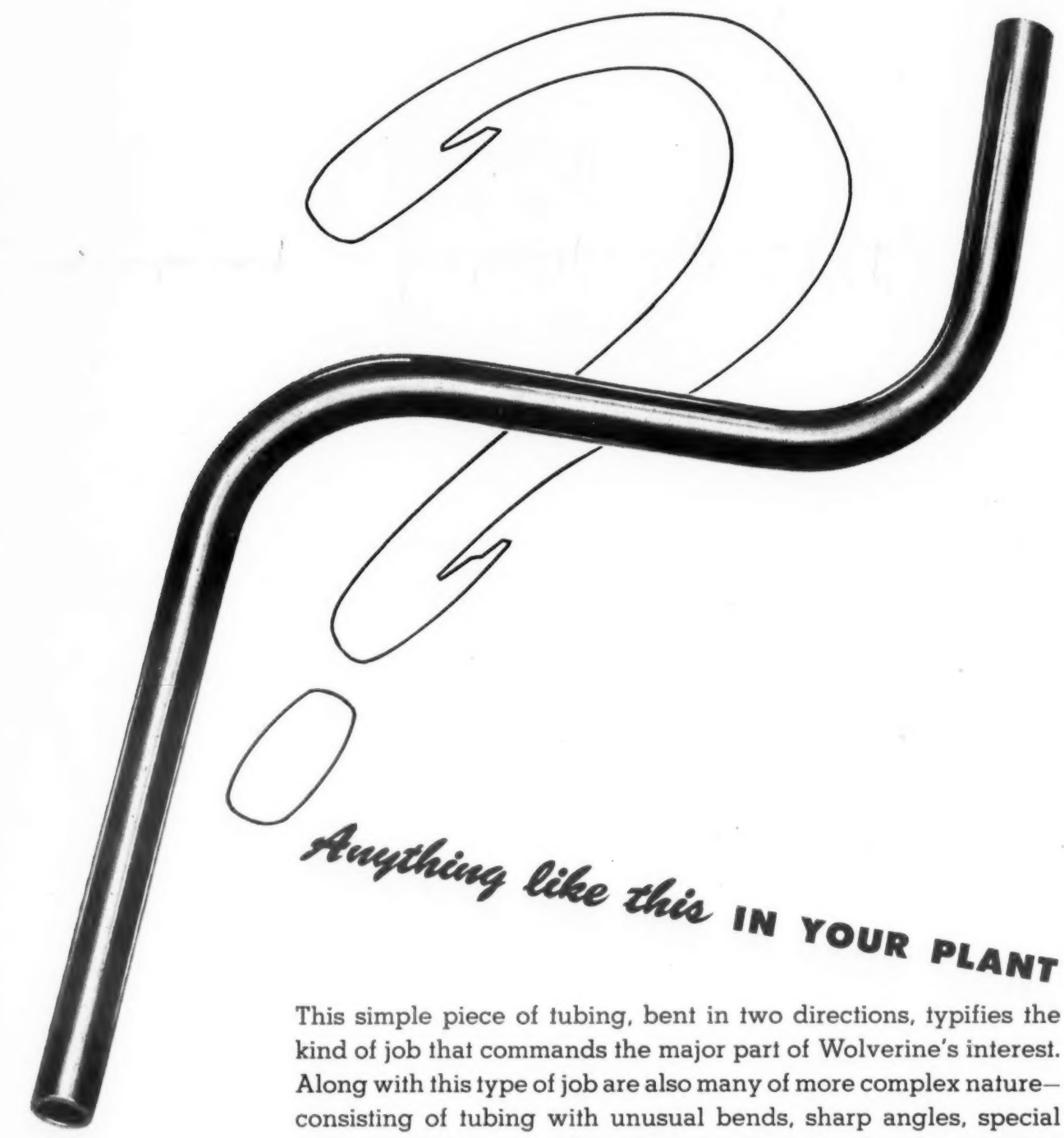
Use only the manufacturer's pulleys or at least be sure that the grooves are the right width and depth and have the correct "included angle" (which is not quite the same as the angle of the belt itself) and that the grooves are the same distance from one another on the motor pulley as on the compressor pulley.

BELT SQUEAKS

V-belts sometimes "squeak" due to a "squeegee' action of the belt in the groove. Do not put oil on the belt. A little talcum powder will be equally effective and will not harm the belt as will oil.

INITIAL STRETCH OF BELT

Wartime V-belts made from reclaimed rubber have a great deal of initial stretch. That is, after being put on the machine they will stretch much more than pre-war belts. If the motor is the automatic belt-tightener type, it will take up this initial stretch; otherwise, the service engineer should check the belt tension a few hours after putting on a new belt and if possible, again the next day. Although the initial stretch is much greater than pre-war belts, after this has been taken up the belt then serves very satisfactorily with very little additional stretch.



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2 Pricing Methods on Overtime Service Charges Set Up by OPA

(Concluded from Page 1, Column 5)

pendent one-man shop, keep certain records (see text of regulation), supply invoices to customers, post conspicuously his new maximum prices, and supply certain information to his local War Price and Rationing Board.

In addition to refrigerators and air conditioning and refrigerating equipment up to 25 tons capacity, other appliances affected by the regulation include electric fans, lamps, sewing machines, vacuum cleaners, washing and ironing machines, kitchen equipment and appliances, radios and phonographs, and similar articles.

Not covered by the regulation, however, are gas unit heaters, furnaces, industrial equipment, water heaters, oil burners, typewriters, adding machines, dictating machines, duplicating or other office equipment.

Changes in pricing methods involving overtime have also been put into effect in another supplementary regulation to MPR 165 issued simultaneously with the regulation on standard prices.

2 METHODS AVAILABLE

Two methods that may be used by service shops in the various repair trades in setting charges to customers to offset increased costs resulting from the payment of overtime wage rates are established by the regulation.

They apply to all suppliers of services whose prices are based on an hourly charge to customers for labor under the terms of the Services Regulation (No. 165).

This action was made necessary, OPA said, because of the decided trend in the repair business toward a lengthening of the work week and the payment of overtime wages beyond the first 40 hours. The 48-hour week has been made mandatory in many areas by rulings of the War Manpower Commission. In many other cases it has been adopted voluntarily in order to use available workers more efficiently.

Charges for most repair services were frozen generally at the March, 1942, level. In authorizing an increase in customers' rates where overtime service is provided, OPA has recognized the problem that added overtime costs have imposed upon many establishments.

A choice of two pricing methods is now allowed to shops with mechanics working 48 hours a week who are paid at overtime rates for the last eight hours.

First, an additional charge is permitted for work done in overtime hours, which may bear the same ratio to the regular hourly charge that the overtime wage rate bears to the regular wage rate, providing the customer requests this overtime service and is willing to pay extra for it.

Thus, if a shop pays time and half for overtime it may charge 1½ times its regular charge for work done in overtime hours, providing this is agreeable to the customer. Under the same conditions, if it pays double time for overtime, it may charge double the regular hourly rate for overtime work.

DOESN'T ALWAYS WORK

This method does not always work out well in practice, OPA declared, since it is not easy to determine exactly which hours in a work week are to be considered as overtime hours. For example, some shops now work one hour longer for 5 days of the week and remain open 3 hours longer on Saturday. Under these conditions it is obvious that many jobs that were started in regular hours will need some part of the overtime period for their completion.

OPA recognizes that this makes the pricing of overtime work extremely difficult, particularly so when it also involves securing permission from the customer before the extra charge is made. To overcome these difficulties and at the same time to permit these establishments to absorb the additional costs a second method is permitted.

Under the second method, an upward adjustment of the regular customer's hourly charge may be made in an amount that approximately represents the additional overtime cost. Where this method is used, all jobs are priced on the same basis during the full 48 hours of the work week, and each customer, by paying slightly higher prices, absorbs his share of the extra cost. The amounts that may be added are as follows:

Where overtime is paid for at 1½ times the regular rate, shops with customer's hourly charges under $1.75, may increase the hourly rate by 5¢. Those whose hourly charges range from $1.75 to $3.49 may increase the hourly rate by 10¢. Those whose hourly charges are $3.50 or more may increase the hourly rate by 15¢.

EXCEPTIONAL CASES

In exceptional cases, where the eight hours of overtime are paid for at double the regular rate, permissible increases are 10 cents on hourly charges below $1.75, 20 cents on charges from $1.75 to $3.49, and 30 cents on charges of $3.50 or more.

A shop must choose one or the other of the two methods for all work done within a 48-hour week, and cannot use both for that period. However, it may use the second method for 48 hours, and the first method for any additional overtime hours beyond 48. This has been permitted, OPA explained, because overtime work done in any period beyond 48 hours is usually of an emergency nature, and the customer would normally expect to pay for it on that basis.

Texts of the two supplementary regulations follow:

Charges For Regular Repair Work

PART 1499—COMMODITIES AND SERVICES
[MPR 165, Supp. Service Reg. 22]
REPAIR OF CERTAIN APPLIANCES AND EQUIPMENT

A statement of the considerations involved in the issuance of this Supplementary Service Regulation No. 22, issued simultaneously herewith, has been filed with the Division of the Federal Register.* For the reasons set forth in that statement and under the authority vested in the Price Administrator by the Emergency Price Control Act of 1942 as amended, and Executive Orders Nos. 9250 and 9328, Supplementary Service Regulation No. 22 is hereby issued.

§1499.674. **Maximum prices for repair of appliances and equipment**—(a) **General rule.** Any person engaged in the repair or maintenance of appliances and equipment (as defined below), who uses a customer's hourly rate to determine his maximum prices, shall determine his maximum customer's hourly rate for such services by any one of the following methods:

(1) He may charge the highest customer's hourly rate actually charged by

(Concluded on Page 16, Column 1)

*Copies may be obtained from the Office of Price Administration.

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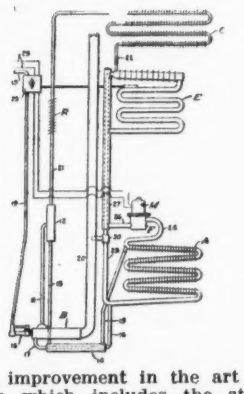
Filters • Driers
Heat Interchangers

VALVES · FITTINGS
ACCESSORIES FOR
REFRIGERATION AND
AIR CONDITIONING

PATENTS

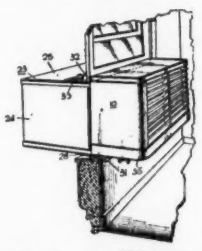
Weeks of Nov. 30 & Dec. 7

2,335,389. REFRIGERATION. Curtis C. Coons, North Canton, Ohio, assignor to the Hoover Co., North Canton, Ohio, a corporation of Ohio. Application Jan. 31, 1938, Serial No. 187,830. 12 Claims. (Cl. 62—5).



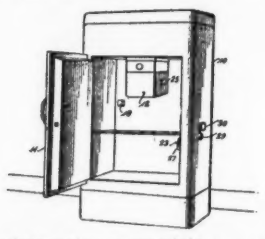
1. That improvement in the art of refrigeration which includes the steps of expelling refrigerant vapor from solution by application of heat thereto, liquefying the vapor expelled, evaporating the liquefied refrigerant into a propelled stream of inert gas, applying a substantially constant propelling force to the inert gas and regulating the rate of flow of the inert gas in accordance with the rate at which heat is supplied to generate refrigerant vapor.

2,335,627. AIR CONDITIONING APPARATUS. Edward R. Wolfert, Springfield, Mass., assignor to Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., a corporation of Pennsylvania. Application Feb. 21, 1940, Serial No. 320,058. 5 Claims. (Cl. 62—129).



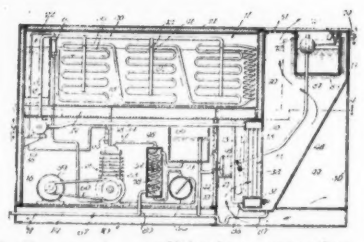
1. In a unit air conditioner, the combination of a unit comprising a base member and air conditioning elements mounted on the base member, said unit being open on two opposite sides and on the top, a housing and mounting structure comprising opposed side walls and a top wall, and means for fastening the housing and mounting structure in a window, said unit being mounted in the housing and mounting structure in such manner that the side and top walls of the latter close the sides and top of the unit, and said unit and said housing and mounting structure being so constructed and arranged that said unit may be withdrawn from and inserted into said housing and mounting structure horizontally while the latter is fastened in a window.

2,335,967. REFRIGERATOR CONTROL. Truman S. Safford, Greenwich, Conn. Application July 6, 1942, Serial No. 449,966. 3 Claims. (Cl. 62—115).



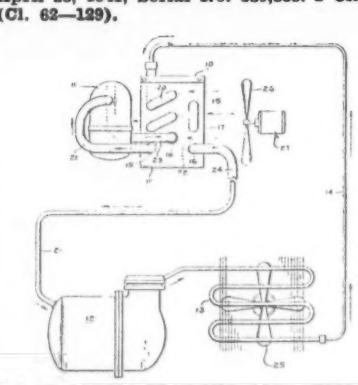
1. A refrigerator comprising a cabinet having an insulated chamber therein, refrigerating apparatus including a cooling unit disposed in said insulated chamber, an element at a point within the insulated chamber remote from the access opening thereof for controlling the apparatus for restricting variations in temperature within a narrow range from a fixed value, and control means for rendering the apparatus ineffective for cooling purposes so as to permit defrosting of the cooling unit, said control means including a temperature responsive element disposed in said chamber adjacent to the access opening thereof and at a point removed from the location of the first named element and in a position to be effected to an appreciable extent by heat from warm objects introduced through said opening into said chamber, said temperature responsive element being of the differential type and initiating and then permitting operation of the control means after the temperature in the vicinity of the temperature responsive element reaches the low limit of a predetermined temperature range and suspending operation of the control means after the temperature in said vicinity reaches the upper limit of said range.

2,336,066. AIR CONDITIONING APPARATUS. Frank Cain, Park Ridge, Ill. Application May 28, 1941, Serial No. 395,677. 12 Claims. (Cl. 62—134).



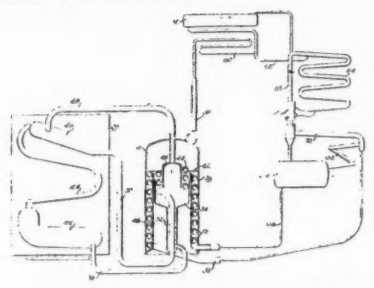
3. In an air conditioning apparatus of the character described, the combination of a cooling tank adapted to contain a column of water and having means associated therewith for refrigerating the water in it; a hollow heat exchanger positioned outside, beneath the level of, the tank and adapted to have air circulated past it; a system for circulating water from the tank through the heat exchanger and thence back to the tank comprising a jacket between and communicating with the heat exchanger and the top of the tank, a return pipe leading from the heat exchanger and having the discharge end thereof arranged to discharge into the tank, and a motor driven pump in said pipe, means for draining the jacket of any water therein when the system is not in use; and means for automatically stopping the pump upon drainage of the jacket.

2,336,077. AIR CONDITIONING APPARATUS. Arthur H. Eberhart, Springfield, Mass., assignor to Westinghouse Electric & Mfg. Co., East Pittsburgh, Pa., a corporation of Pennsylvania. Application April 23, 1941, Serial No. 389,833. 2 Claims. (Cl. 62—129).



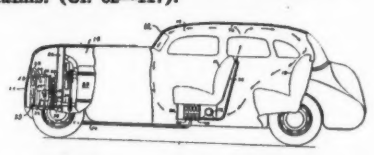
1. In a unit air cooler, the combination of a compressor, a condenser, a constantly-open expansion device of constant restriction comprising a capillary tube, an evaporator of the dry type comprising a plurality of tubes, said tubes being connected in series and in such manner that the refrigerant flows therethrough at substantial velocity and but once before returning to the compressor, a reservoir or accumulator connected to the outlet end of the evaporator to receive the refrigerant leaving the same and being adapted to retain therein any liquid particles of substantial size, a superheater tube or tubes connected to said reservoir or accumulator and receiving the vaporized refrigerant and fine liquid particles of refrigerant entrained therein, and means for effecting flow of a common stream of air over the evaporator tubes and said superheater tube or tubes, said superheater tube or tubes serving to vaporize said fine liquid particles of refrigerant entrained in the vaporized refrigerant and to superheat said vaporized refrigerant.

2,336,085. REFRIGERATING APPARATUS. Richard S. Gaugler, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application June 25, 1941, Serial No. 399,683. 7 Claims. (Cl. 62—119.5).



1. An analyzer comprising a container for rich liquor, a first member having its outlet below the normal level of rich liquor in the container, means for introducing vapors from the generator into the interior of said member, and a second member extending substantially helically in the space between said first member and said container, the coils of said second member surrounding said first member and extending substantially across said space surrounding the first member.

2,336,089. REFRIGERATING APPARATUS. Richard E. Gould, Oakwood, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application Jan. 31, 1941, Serial No. 376,880. 4 Claims. (Cl. 62—117).

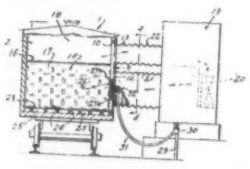


1. In a vehicle having a passenger compartment and an engine compartment; an engine within said engine compartment; a radiator in front of said engine for dissipating waste engine heat; grill means in the front wall of said engine compartment and spaced from said radiator; refrigerating apparatus mounted in the space between said grill means and said engine radiator; said refrigerating apparatus comprising a compressor driven by said engine, a condenser, an evaporator and refrigerant flow means between said compressor, condenser and evaporator; and means for transferring heat from said passenger compartment to said evaporator.

2,336,092. TEMPERATURE RESPONSIVE ELEMENT. Albert O. Grooms, Dayton, Ohio, assignor to General Motors Corp., Dayton, Ohio, a corporation of Delaware. Application Dec. 29, 1941, Serial No. 424,727. 3 Claims. (Cl. 297—3).

1. A temperature responsive element including a fluid motor and a fluid containing tube having at least a limited amount of resiliency, a section of the tube being reversed upon itself, and the free end portion of the reversed section of the tube being fastened to the other section to form a complete resilient looped section generally in the form of an elipse capable of acting to a limited degree as a full elliptic spring, said tube forming the complete looped section as well as the sale fluid connection between the looped section and the motor.

2,336,125. METHOD OF PRECOOLING CARGOES OF VEGETABLE PRODUCTS. Andrew Y. Preble, El Centro, Calif. Application March 24, 1941, Serial No. 384,864. 3 Claims. (Cl. 62—170).

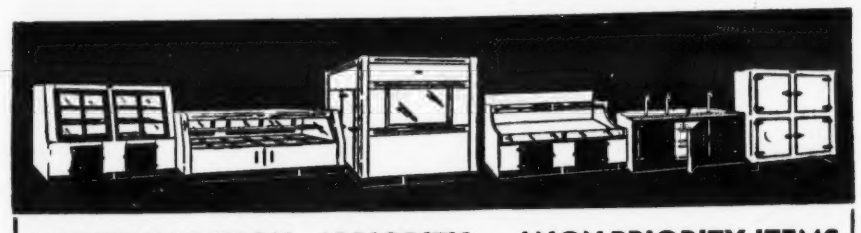


1. A method of cooling a load of fruit or vegetable products arranged in a cargo shipping space, comprising: moving an air stream continuously through a closed circuit having a horizontally disposed component in said cargo shipping space, continuously atomizing water and projecting the water particles counter current into said moving air stream as it enter said shipping space, continuously causing the stream of air and water to travel through said load and deposit water upon said products, and cooling said stream in a portion of said closed circuit outside of said cargo shipping space.

2,336,209. MEANS FOR DETERMINING THE QUANTITY OF AIR FLOWING THROUGH OUTLETS. Carl G. Anderson, Chicago, Ill., assignor to Ventilating & Air Conditioning Contractors Assn. of Chicago, Chicago, Ill., a corporation of Illinois. Application Dec. 15, 1941. Serial No. 422,952. 16 Claims. (Cl. 73—198).

1. A device of the kind described embodying therein a relatively elongated substantially S shaped tubular body having an inlet end and an outlet end, said body increasing in cross sectional

(Concluded on Page 15, Column 2)



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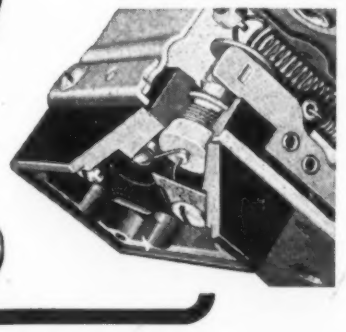
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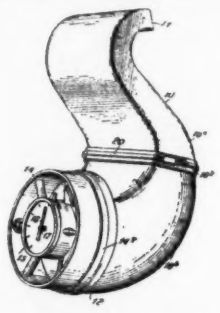
Patents (Cont.)

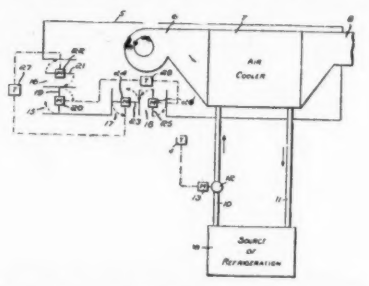
(Concluded from Page 14, Column 4)

area from its inlet end to its outlet end which is adapted to operatively receive an anemometer, and means in the outlet



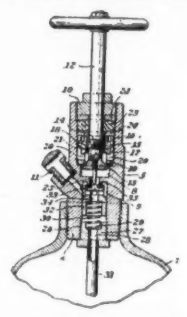
end of the body for uniformly distributing the air passing through the outlet end of the body over said anemometer.

2,336,242. AIR CONDITIONING CONTROL. Milton E. Hanson, Haddonfield, N. J., assignor to B. F. Sturtevant Co., Boston, Mass. Application Feb. 14, 1941, Serial No. 378,928. 6 Claims. (Cl. 236—44).



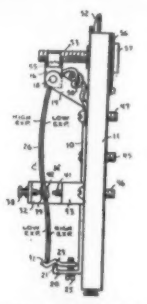
1. An air conditioning system comprising an air cooler having to outdoor air inlets and two recirculated air inlets, dampers in said inlets, means including an outdoor air thermostat for adjusting said dampers in one of said outdoor air and in one of said recirculated air inlets, and means including an indoor thermostat for adjusting said dampers in the other of said outdoor air and in the other of said recirculated air inlets.

2,336,282. VALVE. Richard W. Mueller, Pittsburgh, Pa., assignor to Kerotest Mfg. Co., Pittsburgh, Pa., a corporation of Pennsylvania. Application Sept. 11, 1942, Serial No. 457,936. 1 Claim. (Cl. 277—29).



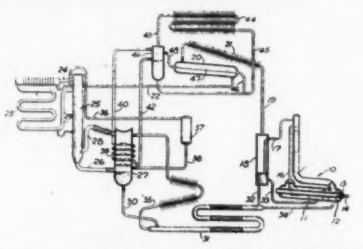
A valve comprising a casing having a chamber extending inwardly from one end thereof, a hollow bushing insertable through the said end of said chamber and disposed in the inner portion of said chamber and threaded to the casing and having a valve seat at its inner end, the casing having an outlet between said end and said seat, a stem screw-threaded to said bushing provided with a valve head impassable through the bushing and coacting with said seat, a plug cap through which said stem passes screwed to the said end of the casing, packing means in said chamber through which said stem passes clamped between said plug cap and bushing, a second chamber extending inwardly from the other end of the casing, a partition on the casing between said chambers having a port therebetween and provided with a valve seat facing in the same direction as the first valve seat, a tubular plug screw-threaded to the casing at the entrance of the second chamber, a slidable ported valve held in the second chamber between said tubular plug and second mentioned seat for engagement with the latter through pressure, and means on one valve head extending through said port and coacting with the other valve head so that the valve heads will approximately simultaneously operate.

2,336,408. THERMOSTAT. Howard D. Matthews, Minneapolis, Minn., assignor to Minneapolis-Honeywell Regulator Co., Minneapolis, Minn., a corporation of Delaware. Application Sept. 30, 1940, Serial No. 358,997. 12 Claims. (Cl. 200—139).



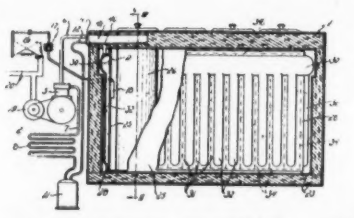
1. In a thermostatic device, in combination, an elongated thermotsatic element comprising a pair of portions which are adapted to deflect laterally on changes in temperature, said portions being jointed end to end so as to deflect in opposite directions, a pair of supports for restraining the two ends of said element from lateral movement and for compressing said element longitudinally, whereby a change in temperature of said element changes its internal stresses so as to produce a lateral snap action of an intermediate portion thereof, and control means adapted to be actuated by lateral movement of a portion of said element by lateral movement of a portion of said element intermediate the ends thereof.

2,336,411. REFRIGERATION. Lowell McNeely, Evansville, Ind., assignor to Servel, Inc., New York, N. Y., a corporation of Delaware. Application Sept. 20, 1941, Serial No. 411,617. 5 Claims. (Cl. 62—119.5).



5. A continuous type of absorption refrigeration system having an absorber and a condenser acting concurrently as heat rejectors, a cooler for said absorber, another cooled for said condenser, a supply of cooling liquid for said coolers, said coolers being connected in parallel and arranged to so receive liquid from said supply that said absorber cooler receives cooling liquid only when said condenser cooler is adequately supplied with cooling liquid.

2,336,418. REFRIGERATING APPARATUS. Lawrence A. Philipp, Detroit, Mich., assignor, by mesne assignments, to Nash-Kelvinator Corp., Detroit, Mich., a corporation of Maryland. Application July 30, 1934, Serial No. 737,539. 8 Claims. (Cl. 62—125).



6. A refrigerator comprising a cabinet having a compartment, a lining of heat conducting material forming the inner wall surface of said compartment, a sealed syystem for heat transfer fluid having a heat absorbing portion and a heat rejecting portion, said heat absorbing portion being in thermal contact wits said lining so that heat from air in said compartment flows through said lining to said heat absorbing portion, and a removable cooling element in heat exchange relation with said heat rejecting portion.

Product's End-Use Helps Determine Essentiality Of Firm, WMC Rules

WASHINGTON, D. C.—The War Manpower Commission has announced the amendment of instructions for the determination of the essentiality of an establishment by providing that the end-use of a product be considered as an additional test.

The essentiality of an establishment, it was explained, depends not only upon its being engaged in an activity included in the List of Essential Activities, but also upon the extent to which the product or service is used to meet war needs or minimum civilian requirements under wartime conditions.

The War Manpower Commission's ruling in earlier instructions, which are still in effect, provided that whenever the essential and unclassified activities are not separate, as in the case when the same workers are engaged in both departments, the establishment will be classified as essential only is 75% of its activities are devoted to production of items on the essential list.

Pressed Metal Group Adds O. L. Earl

CLEVELAND—Appointment of O. L. Earl as market development engineer in connection with postwar problems and planning is announced by W. W. Galbreath, executive vice president of the Pressed Metal Institute.

Under Mr. Earl's direction, an engineering and market development program will be undertaken by the Institute in the interests of further cooperation with the government in redesigning of war material to stampings, and in locating available facilities and man-power in the pressed metal industry to facilitate production. He will also assist the industry in the important task of translating wartime production experience into wider use of stampings in postwar consumer goods.

Bohal & Hubkey Establish New Service Firm

LOS ANGELES—Paramount Refrigeration Service is the firm name under which Edurn J. Bohal and Edward C. Hubkey have published an intention to conduct business at 704 N. Van Ness Ave., here.

WPB Okays Brass For Radiator Valves

WASHINGTON, D. C.—Use of brass in the manufacture of radiator valves may be permitted after Jan. 1, within the limits of materials available, the War Production Board announced recently.

While WPB does not plan to remove existing restrictions on the use of brass, it is believed that the restrictions will not be renewed upon expiration Dec. 31, thus making it possible for manufacturers to reduce their current output of valves composed of substitute materials, in favor of valves in which brass is used.

WPB warns, however, that manufacturers should not infer from the proposed lifting of some of the restrictions on the use of brass in radiator valves, that the supply of brass foundry products is plentiful. Manufacture will be strictly limited by the amount of brass foundry products that can be obtained under CMP.

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ALHAMBRA, Calif.—Ace Locker & Storage Co. is the firm name under which Floyd C. Hood and Charles L. Hughes have published an intention to conduct business at 335 S. Palm St., here.

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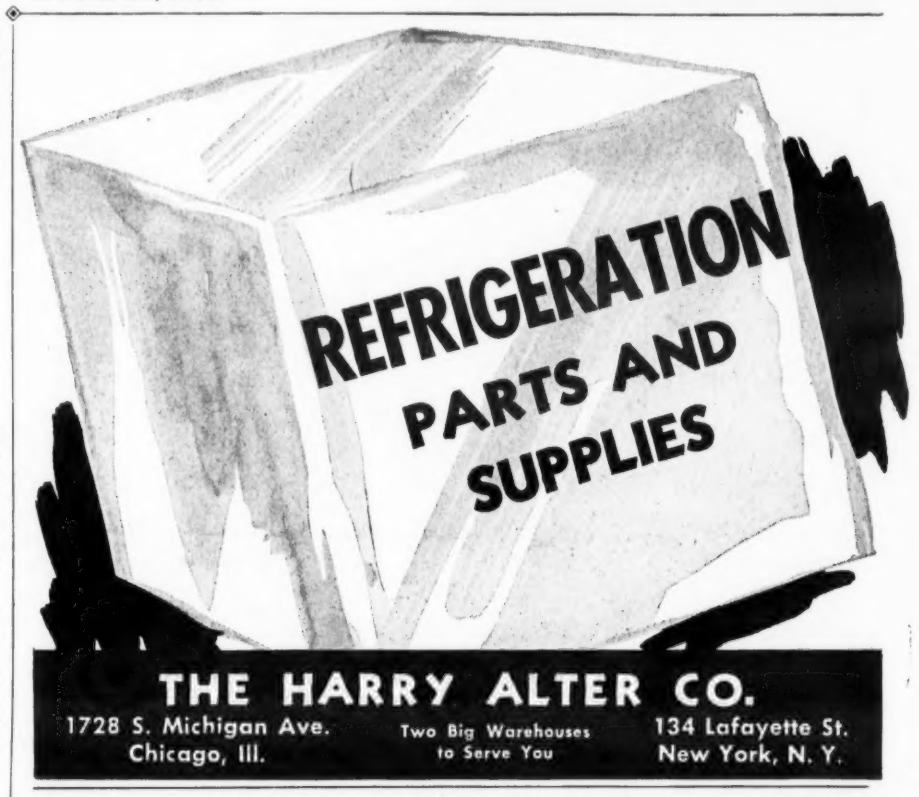

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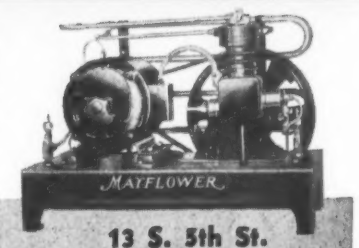

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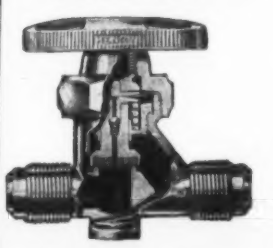
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Text of Regulations Increasing Prices For Service Work

(Concluded from Page 13, Column 5)

him in March, 1942 for the same service to a purchaser of the same class; or

(2) He may multiply by 2 the average basic hourly wage rate (as defined below) paid on Oct. 3, 1942, to employes performing the particular type of service; or

(3) He may add 60¢ to the average basic hourly wage rate (as defined below) paid on Oct. 3, 1942, to employes performing the particular type of service.

(4) He may, if he employs a total of not more than 8 persons and if wage increases paid by him have been exempted from the provisions of Executive Order No. 9250 by the National War Labor Board and do not violate any regulations of that Board, add to a customer's hourly rate determined under subparagraph (2) or (3) an amount equal to the increase since Oct. 3, 1942, in the average basic straight-time hourly rate for mechanics performing each type of service. Adjustments under this subparagraph (4) may not be made more often than once every 30 days.

(5) Where the rates under subparagraph (2), (3), or (4) are not divisible by 5¢, they may be adjusted upward to the nearest amount so divisible.

(b) **Rule for persons having no employes.** Any person subject to this regulation who does not employ any mechanics to perform such work may determine his maximum customer's hourly rate for repairing appliances and equipment by either of the following methods:

(1) He may charge the highest hourly rate which he charged in March, 1942 for the same service to a purchaser of the same class; or

(2) He may charge the maximum hourly rate of his most closely competitive seller who does employ mechanics to perform the service.

(c) **Minimum charge for service calls, etc.** Minimum charges and mileage rates may not exceed the March, 1942 minimum charges and mileage rates to the same class of customer; except that any minimum charge made in March, 1942, which was based upon a stated minimum of time, may now be based upon the same minimum time applied to the hourly charge permitted by this regulation.

(d) **Records.** Any person who increases his prices under this regulation shall prepare a statement setting forth:

(1) His maximum customer's hourly rate for each type of service;

(2) The name and address of every employe who was engaged on Oct. 3, 1942, in performing appliance and equipment repairs. (Show what type of service was performed by each employe; do not list clerical, supervisory, and non-productive employes.)

(3) The hourly wage rate paid on Oct. 3, 1942 to each employe so listed;

(4) In the case of sellers adjusting their prices under paragraph (a) (4), a statement of the hourly wage rate of each employe, on the date of any price increase made under this regulation.

(5) A reference to the paragraph of this regulation under which he has computed his ceiling prices.

This statement shall be retained in the seller's files and may be inspected by the Office of Price Administration. A signed copy of the statement shall be filed with the seller's local war Price and Rationing Board on or before the date of any price increase effected under this regulation. No price increase hereunder shall be lawful until such statment has been filed.

(e) **Invoice.** Any person subject to this regulation shall, upon request, furnish the customer with an invoice for such service, separately showing the hourly rate for the service rendered to the customer, the number of hours worked and any charges made for parts and materials.

(f) **Posting.** When a price is increased as authorized herein, the seller shall post conspicuously in his place of business a notice setting forth his new maximum customer's hourly rate for each service involved. This notice shall be posted in the following form:

Service	New hourly rate
.....	.....
.....	.....
.....	.....
.....	.....

CEILING PRICES FOR LABOR

(g) **Definitions.** (1) "Appliances and equipment" means mechanical, electrical or gas appliances commonly used in homes, hospitals, hotels, institutions, offices, retail establishments, or schools, including but not limited to electric fans, lamps, refrigerators, and refrigerating equipment (up to 25 h.p.), water coolers, air conditioners (up to 25 tons capacity), sewing machines, vacuum cleaners(washing or ironing machines, commercial or domestic kitchen equipment, radios and phonographs (not primarily designed for commercial, military, or police use), and stoves. The term does not include gas unit heaters, furnaces, industrial equipment, water heaters, oil burners, typewriters, adding machines, dictating machines, duplicating equipment, or other office machines.

(2) "Average basic hourly wage rate" is a rate determined as follows: Add together the straight-time hourly wage rates of all productive mechanics (excluding supervisory and clerical employes) regularly engaged in performing a particular type of service. Divide the sum of these by the number of such mechanics employed. This will give you the average.

Overtime Charges

[MPR 165, Supp. Service Reg. 21]
CHARGES FOR OVERTIME WORK

§1499.673. **Charges for overtime work.** Persons performing services covered by Maximum Price Regulation No. 165, whose maximum prices are based upon a customer's hourly charge for labor, may increase such hourly charges in accordance with this regulation when their employes directly engaged in performing such services work overtime and are paid for overtime work at overtime rates. The following rules shall apply:

(a) **When customer requests overtime work.** Persons covered by this regulation may make an additional charge for work done at overtime wage rates in overtime hours if the customer actually requests that the work be done in overtime hours and agrees to pay the additional charge. The ratio of the overtime charge to the regular charge shall not exceed the ratio of the overtime wage rate to the regular wage rate; i.e., if overtime wages are one and one-half times regular wages (time and one-half for overtime) the overtime customer's hourly rate may be one and one-half times the regular customer's hourly rate. This paragraph shall not apply with respect to charges for work done in any overtime hours which have been taken into account for the purpose of increasing hourly rates in the manner authorized by the next paragraph.

(b) **General rule for 48-hour week including 8 hours overtime.** Persons whose employes directly engaged in performing such services regularly work 40 hours a week at straight-time rates and 8 or more hours at overtime rates may add the following sums to their maximum hourly charges established under Maximum Price Regulation 165:

Where overtime is paid for at 1½ times straight-time rates—5 cents per hour to any hourly charge under $1.75; 10 cents per hour to any hourly charge from $1.75 up to but not including $3.50 per hour; 15 cents per hour to any hourly charge of $3.50 or over.

Where overtime is paid for at double straight-time rates—10 cents per hour to any hourly charge under $1.75; 20 cents per hour to any hourly charge from $1.75 up to but not including $3.50; 30 cents per hour to any hourly charge of $3.50 or over.

(c) Except as otherwise provided by this regulation, Maximum Price Regulation No. 165, as amended, remains in force.

This supplementary service regulation shall become effective Dec. 27, 1943.

Issued this 20th day of December, 1943.

Chester Bowles,
Administrator

WPB Refrigeration Staff Heads Named

(Concluded from Page 1, Column 3)

ant to Material Coordinating Unit.

Bert Meyer, Chief, Unitary Equipment Unit (water coolers, self-contained air conditioners, and other similar equipment).

A. H. Keeler, Chief, Compression Equipment Unit (locker plants, cold storage warehouse equipment, ice plants, and similar equipment).

H. L. Forman, Chief, Commercial Refrigerator Unit (reach-in and walk-in refrigerators, low temperature cabinets, and similar equipment).

W. A. Smylie, Chief, Air Conditioning Unit (central plant air conditioning and humidifiers).

Florence Stanton, Control, Mail, and Files.

W. A. Smylie, Chief (Acting), Fin Coil Accessory Unit (fin coils, controls, valves, fittings, and other accessories).

Huntsville, Ala. Locker Plant In Operation

HUNTSVILLE, Ala. — The first quick freeze and cold storage plant at Huntsville is now in operation. E. B. George is the owner. The building that formerly housed the Huntsville Livestock Market has been reconstructed and modern equipment has been installed for more than 400 lockers.

DOOM TO THE ENEMY

Higher . . . higher. Above the ack-ack . . . where the air is thin and icy cold . . . and the Zeros can't follow. Higher. It's the frosting on the enemy's cake . . . a sweet spot to start the target run. Higher. Like carrying the ball behind perfect interference. Today Bush Intercoolers are giving planes of the United Nations the advantages of superior critical altitude. Tomorrow this experience, applied to hundreds of commercial and industrial applications of heat-transfer, will permit many a company to "taste the frosting" . . . to "carry the ball." BUY WAR BONDS.

Bush Intercooler

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Air Conditioning & REFRIGERATION NEWS

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Entered as second-class matter October 2, 1936 at the post office at Detroit, Michigan under the Act of March 3, 1879.

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Ring Out the Old
Ring in the New.
To all my friends in the industry a Happy New Year. I give the world cold comfort and warm wishes for a year which will bring peace to a troubled world and restore sunshine to the hearts of mankind.
PENGUIN PETE
BUSH
HEAT TRANSFER PRODUCTS